Stock Repurchases, Stock Compensation, and Firm Financial Performance

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In this paper I examine how share repurchase activities are associated with employee compensation plans and firm performance. I assume that repurchasing shares in order to pay managers/employees with shares is an incentive and leads to higher effort and better firm financial performance. I perceive firm financial performance in terms of profitability and liquidity (not stock prices). The empirical research was carried out for the years 2004–2013 and for companies that repurchased their share and distributed them among employees/managers as an incentive. I analysed how the financial performance had changed two years after the share repurchase. The empirical evidence in this study suggests that share repurchase is carried out not only as a substitute for dividend payment. Quite often companies announce share repurchase in order to conduct employees/managers incentive program. However, I found that repurchasing shares in order to conduct employees/managers share incentive programs does not lead to firm financial performance improvement.

Key words: share repurchase, buy back, incentive program, compensation plan, firm performance

Introduction

In recent years, share repurchase programs have become an important financial management tool. E. F. Fama and K. R. French found that in the years 1978–1999 the proportion of dividend payers fell from 66.5% to 20.8% (Fama and French 2001). Grullon and Michaely (2002) found that expenditures on share repurchase programs (related to total earnings) increased from 4.8% in 1980 to 41.8% in 2000. Consequently, share repurchases as a percentage of total dividends increased from 13.1% in 1980 to 113.1% with the amount of 200 billion dollars. They also found that the amount of share repurchase as a percentage of net profit increased from 4% to 31% and the number of companies repurchasing their shares increased from 31% in 1972

to 80% in 2000 (Grullon and Michaely 2002). In 1999 and 2000 industrial firms spent more money on share repurchases than on dividend payments. It means that for the first time in history, share repurchase programs have become more popular than dividends. The number of US companies and the amount of money spent on dividend payment were reduced, while the number of companies and money spent on share repurchase increased (Fama and French 2001; DeAngelo, DeAngelo, and Skinner 2004; Hrdlicka 2006).

Due to the financial crisis, American companies diminished the amount of money spent on dividend and share repurchase. Yet, they did not stop paying them out. Even in UK, Canada, France, Italy, Spain, Denmark, Netherlands, Poland and Switzerland the number of companies repurchasing their shares was growing (Lee, Ejara, and Gleason 2010).

Because of growing popularity of share repurchases, it is worth looking into their reasons and results. Therefore, the main reason of share repurchase, which is commonly quoted in the literature, is cash transfer. What appears to be generally ignored in the literature, are studies exploring other reasons for repurchasing shares (e.g. in order to change capital structure, to create employee ownership). That is why the objective of this paper is to investigate the role of share repurchase in creating employee ownership and the financial results of introducing employee ownership.

The contributions of this study to the debate on share repurchases are two-fold. First, the paper provides evidence that cash transfer is not the most important reason for share repurchase. Second, this research presents the financial standing of companies introducing share repurchase in order to build employee/manager ownership.

This article is organized in the following manner. At the beginning, the paper develops share repurchases' reasons. The reasons for share repurchases are examined internationally. Then, the paper examines the literature on employee/manager ownership and firm financial performance. Later, the study discusses the research methodology and provides empirical analysis on the reasons for share repurchase and financial standing of companies introducing employee/manager ownership. Finally, the study presents the findings and suggestion for future research.

Share Repurchase Theories and Reasons: Literature Overview

There were some attempts that aimed to explain the share repurchase phenomena. Theories trying to explain the share repurchase

programs fall into two groups: dividend theories and capital structure theories (Hsieh and Wang 2009). The most popular approach associates share repurchase with payout policy and then share repurchase is regarded as a substitute for dividend payment (cash transfer). These studies attempt to explain share repurchase based on dividend theories but they are still dividend theories, which only might be applied to explain the share repurchase as a payout of excess cash. In all these attempts share repurchase is deemed as a substitute for dividend and share repurchase is deemed as a part of payout policy.

Based on the dividend and capital structure theories there were some theoretical approaches developed. These approaches trying to explain share repurchases popularity include tax environments, the agency theory (agency costs, free cash flows and signalling hypothesis), leverage effect, timing (undervaluation), improving EPS (signalling hypothesis). A variety of theories implies a variety of reasons and motives for share repurchase (Quintana and Hege 2006; Oswald and Young 2002; Dhanani and Roberts 2009; Cremers 2012; Gupta, Jain, and Kumar 2005; Wahid 2013; Hsieh and Wang 2009).

There are many studies carried out for the US companies repurchasing their shares. Studies refer usually to the reaction of investors to share repurchase announcement, signalling hypothesis, and information content, and undervaluation hypotheses. There is a commonplace belief that the US companies repurchase their shares because they want to transfer excess cash or to prevent a fall in share prices (undervaluation hypothesis) (Badrinath and Varaiya 2000). Various influences of the multiple forces behind the increase in share repurchases in the US have changed over time. The early literature on share repurchases (Dann 1981; Vermaelen 1981) developed models consistent with signalling of undervaluation. With the safe harbour policies of the SEC in 1983, supported by similar actions by the IRS, tax savings and flexibility motives became stronger. The increased threats of takeovers that emerged at about the same time increased the role of share repurchases as a takeover defence.

The research carried out in France, Germany, and Italy (Lee, Ejara, and Gleason 2010) for the period 1990–2005 found out the support for the undervaluation hypothesis and the takeover deterrence hypothesis. However, they did not provide the support for the excess cash hypothesis or the optimal leverage ratio hypothesis.

The research carried out only for Germany (Zdantchouk 2003) found out that since the ban lift for share buy-backs in Germany in May 1998, the most popular reason for buying back own shares was

to use the repurchased stocks as currency for future acquisitions. Undervaluation of the stocks seemed to be the second important rationale for share buy-backs. The role of treasury stocks for its implementation in employees' incentive programs increased significantly over time (4% in 1999 and 12% in 2002).

Another research for Germany and the Netherlands showed that the results confirmed the expectations of the capital market allocation hypothesis, the capital structure adjustment hypothesis, the dividend substitution hypothesis and the undervaluation hypothesis. The free cash flow hypothesis was confirmed only in part. No evidence was found that the low tax rate on capital gain in the Netherlands resulted in higher abnormal returns (Cremers 2012).

Most repurchasing companies in the UK identified multiple reasons. While the opportunity to return excess cash to shareholders was by far the most frequent motivation, for 73%. Other reasons that follow include the need to improve the reported EPS level (49%); signal undervaluation of company shares (39%); and optimise the companies' gearing ratios (36%). Additionally, just under one third of the respondents (29%) claimed that they used repurchase programs in response to investor expectations; 27% – as a flexible means of cash distribution, to influence capital structure and investment decisions; and 26% – to influence company share price. All other motivations including the provision of shares for reissue and as a signal of an improvement in future performance were less prominent, as they were present in under 25% of the cases canvassed (Rau and Vermaelen 2002; Dhanani and Roberts 2009).

As for Canada, there is research carried out by McNally (2002). The majority of analysed companies, as 69% of these firms, were motivated by the insiders' belief that the firm's shares 'represent a good investment' or 'are currently undervalued by the market.' Such wording is generally consistent with both the signalling and undervaluation hypotheses. 12% of the issuer bids were motivated to offset the dilution caused by employee stock ownership plans (ESOPS), and the remaining 19% of the announcements did not offer a clear motive.

Research for Taiwanese listed companies was carried out by Wen (2006). The companies in Taiwan were not allowed to buy back their outstanding shares until August 2000. Listed companies now are able to make repurchase announcements for only three reasons. Empirical research found their importance as follows: (1) providing shares as incentives (64%), (2) converting bonds to shares (1%), and (3) protecting company creditability and equity (35%).

In Japan, both the purpose and the fund for stock repurchase are regulated. Firms can repurchase shares only for the purpose of (1) retirement of shares or granting stock options to executives and employees and (2) assigning stocks for an employee stock ownership plan. Out of all companies repurchasing their shares 23% announced stock option as the purpose of share repurchase program, while 77% announced retirement programs as the purpose (Wada 2005).

To sum up, it is not only the cash transfer or dividend substitution. There are many reasons for the companies to start repurchasing their shares. One of the most important reasons was implementing stock-based compensation programs. Most theories and studies regarding share repurchase refer to cash distribution (associated with MM theorem), and undervaluation (associated with signalling and timing hypotheses).

However, some studies show that important rationale for share repurchase is repurchasing shares in order to distribute them among employees and managers (providing shares as an incentive for employees and managers and building managerial/employee ownership). This facet seems to be a very important issue while discussing the share repurchase phenomena. The role of this rationale seems to be undervalued although it is quite a popular reason for share repurchase in many countries.

Share Repurchase and Employees/Managers Ownership

There are some studies showing that while repurchases were rising, the use of stock-based compensation was taken off. Three quarters of the members of the S&P 500 from 1994 to 1998 increased stock option grants over the period (Strege 1999; Weston and Siu 2003). Jolls (1996) and Fenn and Liang (2001) focused on the form of executive compensation as an explanation for the growth in share repurchases. Liang and Sharpe (1999) also observe that the sharp increase in buyback in the 1990s was accompanied by a corresponding rise in employee stock-option awards.

The idea of providing shares as an incentive for employees and managers and building employee/managerial ownership draws on the agency theory and agency problems (different interests of principals and agents) (Alchian and Demsetz 1972; Fama 1980; Jensen and Meckling 1976; Fama and Jensen 1983; Jensen 1986). The agency dilemma (principal-agent problem) concerns the difficulties in motivating one party (the 'agent'), to act in the best interests of another (the 'principal') rather than in his or her own interests.

Various mechanisms may be used to align the interests of the

agent with those of the principal (Pendergast 1999). One of them is employee/managerial ownership. Employee share ownership schemes can enhance commitment (direct participation, job satisfaction and investment orientation), resulting in improved economic performance and organizational performance (increased flexibility) and, hence, in improved industrial relations (reduced conflict) (Landau et al. 2007). It provides employees with incentives to work more and better and to cooperate with colleagues and the management, since their income will increase if the company performance improves (Pérotin and Robinson 2002).

There are also a lot of studies referring to impact of managerial ownership on the company performance. The initial thrust of the literature that analyzes the effect of managerial ownership on the company performance was that: greater managerial ownership benefits shareholders because it increases managers' incentives to increase firm value (Jensen and Meckling 1976; Morck, Shleifer, and Vishny 1988; Stulz 1988).

Other studies pointed out, however, that if managers own a substantial percentage of the company shares, they may try to entrench themselves in the company they manage by over-investing (empire building) and accepting negative present value projects that reduce corporate wealth (Demsetz 1983; Fama and Jensen 1983).

Many empirical studies found no relationship between managerial ownership and the company performance (Brick, Palia, and Wang 2005; Cho 1998; Demsetz and Villalonga 2001; Loderer and Martin 1997; Vafeas and Theodorou 1998). However, Faccio and Lasfer (1999) found that this relationship is merely weak. Other studies found that there is a relationship but that it is non-linear. For example, Morck, Shleifer, and R. Vishny (1988) found a positive relationship between Tobin's Q and managerial ownership for ownership levels between 0 and 5 percent and above 25 percent. For intermediate levels, the relationship is negative. McConnell and Servaes (1990) found a similar relationship in their study, but identified the inflection point between 40 and 50 percent of ownership. Hermalin and Weisbach (1991), Holderness, Kroszner, and Sheehan (1999), Cebenoyan, Cooperman, and Register (2000), Cui and Mak (2002), and McConnell, Servaes, and Lins (2008) provided support for the non-linear relationship between managerial ownership and the company performance.

Employee share ownership can provide a means of 'internalizing the stakeholder-firm relationship' (Landau et al. 2007). The idea of employee ownership has attracted support across the governmen-

tal field, often being perceived as a form of economic equality that matches political democracy. Employee share ownership can have an important role to play in boosting economic growth, promoting a fairer distribution of income and wealth, and giving individuals better control and autonomy over their own lives (Briône and Nicholson 2012; Martes 2012).

Methodology

Several recent studies have noted a phenomenal increase in stock repurchases in the past two decades. In 1998, for the first time, total funds paid out via repurchases have exceeded those paid out in the form of dividends. Particularly interesting was the surge in repurchases over 1995–1999 during soaring valuations (and the drop in stock buybacks in 2000 when stocks were cheap). This buyback surge was also accompanied by a rise in employee/managers stock awards as an incentive program for managers and employees and attracted an increasing amount of attention from the business press and academics. However, there is no research on the effect of share repurchase (in order to distribute them among employees and managers) on financial performance of the company. The main obvious reason for implementing share incentive programs for employees or managers is to encourage them to more effective effort that leads to better performance.

The purpose of this study is to test the following hypothesis: companies repurchasing their shares in order to distribute them among employees and managers enhance the company financial performance.

The research covers the publicly traded companies on the Warsaw Stock Exchange. The analysis is done for the years 2004–2013. I began by examining firms' motives for share repurchases. I examined share repurchases announcements from 2004–2013 to determine the number of companies that started repurchasing their shares and to find out the rationale for repurchasing shares. I examined also other announcement to find out the number of companies implementing stock incentive programs. The next step was to identify the number of companies repurchasing their shares in order to distribute them among the employees and managers. To investigate this, I use data from GPW Infostrefa to collect information on companies repurchasing their shares and the reasons for this.

After having identified companies repurchased their shares in order to distribute them among the employees and managers, I examined their financial situation. I compared financial ratios before and

after repurchasing shares. To investigate this, I use the data from Notoria Serwis to collect financial information of companies repurchasing their shares in order to distribute them among employees and managers.

To verify the hypothesis, I had to decide on the way of measuring financial situation and the method of comparing the financial ratios of companies repurchasing their shares in order to distribute them among employees and managers. A close look at the subject literature on employee/managerial ownership and the company performance raises serious questions about how the company performance was measured and tested. In literature, most measurements of the company performance were one-dimensional and they focused either on firm value (measured as Tobin's Q), equity returns, volatility of equity returns or some other based on stock prices. I decided on several financial ratios:

- profitability: ROS, ROA, and ROE, and
- liquidity: current ratio, quick ratio and cash ratio.

Then I decided to compare the financial ratios of the two periods – before and 2 years after repurchasing shares. To verify whether the financial situation has changed, I applied descriptive statistics and non-parametric Wilcoxon test for mean (matched sample, data for the same sample from two different periods).

Research Findings

The total number of companies listed on the Polish Stock Exchange that started repurchasing their shares in the period of 2005–2013 amounts to 239. It is more than one third of the companies listed on the Polish Stock Exchanges listed at the end of 2013.

Under The Polish Commercial Code there is no requirement to indicate the reason for share repurchase. Thus, it is only optional and good will when companies indicate the reasons for share repurchase. Therefore, it is more often than not that companies indicate no reason or many reasons for share repurchase. About 70% of all companies that started share repurchase in the years 2005–2012 do not indicate any reason. One might conclude that companies expect investors themselves to assign information content to share repurchase according to their knowledge. In this manner the managers are given a wide leeway to take decision on allocation and usage of repurchased shares at their convenience. The most common indicated reason for repurchasing shares is an incentive program for

TABLE 1 Reasons for Share Repurchase Indicated by Polish Companies Listed on WSE

Year	Number	Reasons				
		(1)	(2)	(3)	(4)	(5)
2005	22	3	4	2	0	13
2006	14	0	0	2	2	10
2007	10	0	0	1	0	9
2008	40	0	4	5	4	27
2009	30	0	3	10	1	16
2010	17	0	1	4	2	10
2011	34	0	1	7	2	24
2012	45	0	6	3	5	31
2013	27	0	2	2	2	21

NOTES Column headings are as follows: (1) cash distribution, (2) undervaluation, (3) incentive system for employees, (4) capital group restructuring, (5) no reason or many reasons indicated.

managers and employees – 36 companies. About 14% of all companies repurchasing their shares indicate this reason.

It is important that in the previous period (1990–2004) no public company in Poland implemented any motivation programs for employees and managers. In the period of 2005–2013 there were 93 companies that announced starting to develop and implement employee/managers motivation programs. In addition, these intentions resulted in 80 implemented motivation programs (some of them remained not applied). Ultimately, designed and implemented programs were based on different basis (options, or warrants, or newly issued shares, or even bonds or share repurchase programs). Among these companies that started implementing motivation programs were 36 companies repurchasing shares at the same time.

The analysis of financial standing of the companies that started to repurchase their shares in order to provide their employees/managers covers financial ratio of the two periods – before share repurchase and 2 years later. At the beginning the profitability ratio was analysed (table 2).

Less than the half of the companies repurchasing their shares in order to distribute them among the employees and managers (about 14 companies) have higher profitability than the average for the whole economy. However, this is especially true for companies that started repurchasing their shares in 2005, 2006, and 2007. Among companies that started to repurchase their shares in years 2008, 2009, 2010 and 2011 there were fewer companies with profitability

TABLE 2 Profitability Characteristics of the Companies that Repurchased Their Shares in Order to Distribute Them among Employees and Managers

(1)	ROS			ROA			ROE		
	(2)	(3)	(4)	(2)	(3)	(4)	(2)	(3)	(4)
2005	100	100	50	100	100	50	100	100	50
2006	50	50	0	100	50	50	100	100	50
2007	100	0	0	100	0	0	100	0	0
2008	80	80	20	40	20	20	20	40	40
2009	50	30	40	50	10	30	40	30	30
2010	25	25	25	50	25	50	50	25	50
2011	71	43	29	43	29	14	57	43	29

NOTES Column headings are as follows: (1) year of share repurchase, (2) percentage of companies with higher ratio than average for the economy before the share repurchase, (3) percentage of companies with higher ratio than average for the economy two years after the share repurchase, (4) percentage of companies that improved ratio during two years after the share repurchase.

TABLE 3 Liquidity Characteristics of the Companies That Repurchased Their Shares in Order to Distribute Them among Employees and Managers

(1)	Current ratio			Quick ratio			Cash ratio		
	(2)	(3)	(4)	(2)	(3)	(4)	(2)	(3)	(4)
2005	0	50	100	0	50	100	0	0	50
2006	50	0	50	50	50	0	50	50	0
2007	100	0	0	0	0	0	100	0	0
2008	80	60	20	100	80	20	80	60	20
2009	80	70	10	60	80	20	50	50	50
2010	25	75	75	50	75	75	50	50	75
2011	57	71	29	43	57	71	14	0	57

NOTES Column headings are as follows: (1) year of share repurchase, (2) percentage of companies with higher ratio than average for the economy before the share repurchase, (3) percentage of companies with higher ratio than average for the economy two years after the share repurchase, (4) percentage of companies that improved ratio during two years after the share repurchase.

ratios higher than the average for the economy. For the two subsequent years after the year of share repurchase, only one third of the companies improved their profitability ratios (10 companies out of 31 companies).

The second aspect of financial analysis was liquidity analysis (table 3). More than half of the companies repurchasing their shares in order to distribute them among employees and managers have higher liquidity than the average for the whole economy (19 companies). However, this is true for companies that started repurchasing

TABLE 4 Test of Normality for Variables of a Sample

Item	SW	*df*	*p*
ROS – before	0.649	31	0.000
ROS – 2 years after	0.615	31	0.000
ROE – before	0.783	31	0.000
ROE – 2 years after	0.490	31	0.000
ROA – before	0.786	31	0.000
ROA – 2 years after	0.806	31	0.000
Current liquidity ratio – before	0.696	31	0.000
Current liquidity ratio – 2 years after	0.741	31	0.000
Quick ratio – before	0.676	31	0.000
Quick ratio – 2 years after	0.715	31	0.000
Cash ratio – before	0.538	31	0.000
Cash ratio – 2 years after	0.657	31	0.000

NOTES SW – Shapiro-Wilk test, *df* – degrees of freedom.

their shares in 2007, 2008, and 2009. Among companies that started to repurchase their shares in the years 2005, 2006, 2010 and 2011 there were fewer companies with liquidity ratios higher than the average for the economy.

For the two years following the year of share repurchase, more than half of the companies improved their liquidity ratios (16 companies out of 31 companies). For a more thorough analysis I applied statistical hypothesis test method:

1. to check whether a sample came from a normally distributed population – a test of normality,
2. to compare two related samples, matched samples, with repeated measurement on a single sample to assess whether their population mean ranks differ.

To check whether a sample came from a normally distributed population I applied the Shapiro-Wilk test. The Shapiro-Wilk test utilizes the null hypothesis principle to check whether a sample came from a normally distributed population. The null-hypothesis of this test is that the population is normally distributed.

The level of *p*-value of the Shapiro-Wilk test is less than the chosen alpha level (0.05), then the null hypothesis is rejected and there is not evidence that the data tested are from a normally distributed population.

To compare matched samples (with repeated measurements on a single sample) when sample cannot be assumed to be normally distributed to assess whether their population mean ranks differ, I

TABLE 5 Wilcoxon Test for Differences in the Mean of Financial Ratios

Item	Mean	SD	WX	p
ROS – before	3.8	0.365	−1.254	0.210
ROS – 2 years after	8.6	0.414		
ROE – before	11.8	0.357	−1.717	0.086
ROE – 2 years after	3.8	0.497		
ROA – before	5.8	0.160	−1.764	0.078
ROA – 2 years after	1.4	0.097		
Current liquidity ratio – before	2.562	2.678	−0.784	0.433
Current liquidity ratio – 2 years after	2.594	2.159		
Quick ratio – before	2.223	2.684	−0.862	0.389
Quick ratio – 2 years after	2.013	2.031		
Cash ratio – before	1.102	2.129	−0.372	0.710
Cash ratio – 2 years after	0.860	1.288		

NOTES SD – standard deviation, WX – Wilcoxon Test.

applied a non-parametric statistical hypothesis test – the Wilcoxon test. The null hypothesis states that median difference between the pairs is zero.

Because the p-value is large (higher than 0.05) for every financial ratio, the data do not give any reason to conclude that the population median differs from the median from the previous period (before the repurchasing date). There is no compelling evidence that the means differ, let alone improve. There are no statistically significant differences between the mean of the financial ratios. It means that repurchasing shares and distributing them among employees and managers did not lead to the improvement of the financial standing of these companies.

Conclusions

This study was inspired by a growing number of companies that started repurchasing shares. There is also a growing number of research and studies on this subject. I identified several major research questions: what are the reasons for share repurchase, is it the only way to transfer excess cash to shareholders, what are the results of share repurchase programs as far as the stock price and firm financial performance are concerned. For the purpose of this study, an attempt was made to find out the reasons for share repurchase, the importance of stock incentive motivation programs as a reason for share repurchase, and the effect of share repurchase in order to distribute them among employees/managers on financial company performance. There has been no study before comprising

all these aspects in one paper. The major contribution of this study is tackling the share repurchase from broader perspective (reasons and results).

My study appears to be supportive for previous observations that it is extremely difficult to find out the rationale for share repurchases in particular countries. This is because companies have no obligation to reveal the reasons for a share repurchase program while announcing it. It makes any research on share repurchase difficult.

My study gives evidence that share repurchase in order to transfer excess cash flow is not the main reason. It is especially true for most of European and Asian companies. They usually carry out share repurchase as a means to achieve different goals (takeover defence, currency for paying in acquisition, capital structure decision) while in the Anglo-Saxon countries it is more popular to repurchase their shares because of undervaluation, as another way of distributing cash, as a signal.

My study shows that the most frequently indicated reason for share repurchase in Poland was share motivation programs. It is consistent with research on Taiwanese and Japanese stock markets.

My study supports the observations that a growing number of share repurchase programs is accompanied with a growing number of share incentive programs.

Nonetheless, contrary to much of the theoretical literature, my results are not compatible with expected effect of employee/managers ownership on financial company performance. My study gives evidence that repurchasing shares in order to distribute them among the employees and managers do not have the statistically significant effect on firm financial performance. However, there are some empirical studies that employee/managers ownership can have no effect or have adverse effects on the company performance.

If the money spent on share repurchase is deemed to be an investment, then one can conclude that this investment did not lead to achieve the expected results (firm financial performance). There might be a couple of reasons for this failure: (1) the share incentive programs were not sufficient for employees to encourage them to greater effort; because for the employees it was compensation (salary for the past effort) not an incentive (motivation to greater effort in the future); (2) the true expected result of share repurchase was not better financial company performance but a signal of their social responsibility to achieve an increase in market stock prices (in this context the announced reasons might be misleading). However, these suppositions need some thorough further research.

References

Alchian, A. A., and H. Demsetz. 1972. 'Production, Information Costs, and Economic Organization.' *The American Economic Review* 62 (5): 777–95.

Badrinath, S. G., and N. Varaiya. 2000. *The Share Repurchase Decisions: Causes, Consequences and Implementation Guidelines*. Morristown, NJ: Financial Executives Research Foundation.

Brick, I. E., D. Palia, and C. J. Wang. 2005. 'Simultaneous Estimation of CEO Compensation, Leverage and Board Characteristics and their Impact on Firm Value.' Working Paper, Rutgers University, New York.

Briône, P., and C. Nicholson. 2012. *Employee Ownership: Unlocking Growth in the UK Economy*. London: Centre Forum.

Cebenoyan, A. S., E. S. Cooperman, and C. A. Register. 2000. 'Managerial Stock Ownership as a Corporate Control Device: When Is Enough, Enough?' NYU Working Paper FIN-00-043, New York University, New York.

Cho, M.-H. 1998. 'Ownership Structure, Investment, and the Corporate Value: An Empirical Analysis.' *Journal of Financial Economics* 47:103–21.

Cremers, J. S. 2012. 'Testing the Motivation for Share Repurchases: Firms in the Netherlands and Germany.' Master's Thesis, Tilburg University, Tilburg.

Cui, H., and Y. T. Mak. 2002. 'The Relationship Between Managerial Ownership and Firm Performance in High R&D Firms.' *Journal of Corporate Finance* 8:313–36.

Dann, L. Y. 1981. 'Common Stock Repurchases: An Analysis of Returns to Bondholders and Stockholders.' *Journal of Financial Economics* 9:113–38.

DeAngelo, H., L. DeAngelo, and D. J. Skinner. 2004. 'Are Dividends Disappearing? Dividend Concentration and the Consolidation of Earnings.' *Journal of Financial Economics* 72 (3): 425–56.

Demsetz, H. 1983. 'The Structure of Ownership and the Theory of the Firm.' *Journal of Law and Economics* 26 (2): 375–90.

Demsetz, H., and B. Villalonga. 2001. 'Ownership Structure and Corporate Performance.' *Journal of Corporate Finance* 7:209–33.

Dhanani, A., and R. Roberts. 2009. *Corporate Share Repurchases: The Perceptions and Practices of UK Financial Managers and Corporate Investors*. Edinburgh: The Institute of Chartered Accountants of Scotland.

Faccio, M., and M. Lasfer. 1999. 'Managerial Ownership, Board Structure and Firm Value: The UK Evidence.' Research Paper, Cass Business School, London.

Fama, E. F. 1980. 'Agency Problems and the Theory of the Firm.' *The Journal of Political Economy* 88 (2): 288–307.

Fama, E. F., and K. R. French. 2001. 'Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?' *Journal of Financial Economics* 60 (1): 3–43.

Fama, E. F., and Jensen, M. C. 1983. 'Agency Problems and Residual Claims.' *Journal of Law and Economics* 26:327–49.

Fenn, G., and N. Liang. 2001. 'Corporate Payout Policy and Managerial Stock Incentives.' *Journal of Financial Ecomomics* 60:45–72.

Grullon, G., and R. Michaely. 2002. 'Dividends, Share Repurchases, and the Substitution Hypothesis.' *The Journal of Finance* 57 (4): 1649–84.

Gupta, L. C., N. Jain, and A. Kumar. 2005. 'Corporate Practices Regarding Buyback of Shares and Its Regulation in India.' Working paper, Indian Council of Social Science Research, New Delhi.

Hermalin, B. E., and M. S. Weisbach. 1991. 'The Effects of Board Composition and Direct Incentives on Firm Performance.' *Financial Management* 20:101–12.

Holderness, C. G., R. S. Kroszner, and D. P. Sheehan. 1999. 'Were the Good Old Days That Good? Changes in Managerial Stock Ownership Since the Great Depression.' *Journal of Finance* 54 (2): 435–69.

Hrdlicka, C. M. 2006. 'Finding the Disappearing Dividends: Stock Repurchaser Characteristic, and Their Increasing Propensity to Pay.' Working paper. http://dx.doi.org/10.2139/ssrn.1787219

Hsieh, J., and J. Wang. 2009. 'Stock Repurchases: Theory and Evidence.' Working paper. http://dx.doi.org/10.2139/ssrn.1395943

Jensen, M. C. 1986. 'Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers.' *American Economic Review* 76 (2): 323–9.

Jensen, M. C., and W. H. Meckling. 1976. 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure.' *Journal of Financial Economics* 3:305–60.

Jolls, C. 1996. 'The Role of Compensation in Explaining the Stock Repurchase Puzzle.' Working Paper, Harvard Law School, Cambridge, MA.

Landau, I., Mitchell, R., O'Connell, A., and I. Ramsay. 2007. 'Employee Share Ownership: A Review of the Literature.' Research report, The University of Melbourne, Melbourne.

Lee, C. I., D. D. Ejara, and K. C. Gleason. 2010. 'An Empirical Analysis of European Stock Repurchases.' *Journal of Multinational Financial Management* 20 (2–3): 114–25.

Liang, J. N., and S. A. Sharpe. 1999. 'Share Repurchases and Employee Stock Options and their Implications for S&P 500 Share Retirements and Expected Returns.' Finance and Economics Discussion Series 1999-59, Federal Reserve System, Washington, DC.

Loderer, C., and K. Martin. 1997. 'Executive Stock Ownership and Performance: Tracking Faint Traces.' *Journal of Financial Economics* 45:223–55.

Martes, R. J. F. 2012. 'Employee Ownership and Firm Performance: The Performance of Employee-Owned Firms in Europe.' Master's Thesis, Tilburg University, Tilburg.

McConnell, J. J., and H. Servaes. 1990. 'Additional Evidence on Equity Ownership and Corporate Value.' *Journal of Financial Economics* 27:595–612.

McConnell, J. J., H. Servaes, and K. V. Lins. 2008. 'Changes in Insider Ownership and Changes in the Market Value of the Firm.' *Journal of Corporate Finance* 14 (2): 92–106.

McNally, W. J. 2002. 'Open Market Share Repurchases in Canada.' *Canadian Investment Review* 15 (Winter): 24–31.

Morck, R., A. Shleifer, and R. Vishny. 1988. 'Management Ownership and Market Valuation: An Empirical Analysis.' *Journal of Financial Economics* 20:293–315.

Oswald, D., and S. Young. 2002. 'Why Do Firms Buyback Their Shares? An Analysis of Open Market Share Reacquisitions by UK Firms.' Working paper.

Pendergast, C. 1999. 'The Provision of Incentives in Firms.' *Journal of Economic Literature* 37:7–63.

Pérotin, V., and A. Robinson. 2002. 'Employee Participation in Profit and Ownership: A Review of the Issues and Evidence.' Working paper, Leeds University Business School, Leeds.

Quintana, P.-E., and U. Hege. 2006. 'Open Market Share Repurchases and Their Signaling Power: The French Experience, 1998–2006.' Research paper, HEC Paris, Paris.

Rau, P. R., and T. Vermaelen. 2002. 'Regulation, Taxes, and Share Repurchases in the United Kingdom' *Journal of Business* 75 (2): 245–82.

Strege, D. 1999. 'Strategies for Stock Based Compensation.' *Compensation and Benefits Review* 31 (6): 45–54.

Stulz, R. M. 1988. 'Managerial Control of Voting Rights: Financing Policies and the Market for Corporate Control.' *Journal of financial Economics* 20:25–54.

Vafeas, N., and E. Theodorou. 1998. 'The Relationship Between Board Structure and Firm Performance in the UK.' *The British Accounting Review* 30:383–407.

Vermaelen, T. 1981. 'Common Stock Repurchases and Market Signalling: An Empirical Study.' *Journal of Financial Economics* 9:139–83.

Wada, K. 2005. 'Stock Repurchases in Japan.' Working paper.

Wahid, A. H. D. A. 2013. 'Measuring the Motivating Factors for Share Buyback: Evidence from Malaysian Companies.' *Online Journal of Social Science Research* 2 (2): 35–50.

Wen, Y.-F. 2006. 'Additional View as to Why Taiwan's Listed Companies Make Share Repurchase Announcements: A Political Perspective.' *The Journal of Global Business Management* 2 (1): 48–60.

Weston, F. J., and J. A. Siu. 2003. 'Changing Motives for Share Repurchases.' Working Paper, Anderson Graduate School of Management, Los Angeles.

Zdantchouk, A. 2003. 'Share Repurchases in Germany: An Empirical Investigation.' Diploma Thesis, Wolfgang Goethe-University, Frankfurt.

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