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## Share Repurchases

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# 1

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## Introduction

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What makes share repurchases interesting? In some ways, a share repurchase is a microcosm of corporate finance. First, it is an *investment* decision, an investment in itself, as opposed to investing in capital goods or buying another company. Second, it is a *payout* decision, as an alternative to paying a dividend. Third, it is a *capital structure* decision as it increases the company's financial leverage. Fourth, it is a decision to change the *ownership structure* of the company, in particular considering that managers and insiders don't sell their shares back to the company. The all encompassing nature of a repurchase also means that the references in this manuscript will be inevitably incomplete, as a massive body of research in corporate finance is either directly or indirectly related to share buybacks.

Share repurchases have also become an important and a global activity in recent years, as opposed to a minor activity only relevant in US markets. For example, when I wrote my doctoral dissertation on share repurchases in the late seventies, I had to look back for 15 years to collect a few hundred repurchase announcements. Today, I would only have to look back a few months. Share repurchases were also largely inexistent outside the US. Today, non-US buyback activity has become as important as in the US.

## 2 *Introduction*

The purpose of this text is to provide an overview of research on stock repurchases, hopefully to encourage others to research this exciting event. I also have tried to give my personal interpretation of the numerous research results published during the last 25 years. The text starts with a description of the various methods to repurchase stock and the growing importance of buybacks around the world. Section 3 discusses the importance of the institutional environment, i.e. regulation and taxes, for the emergence of share repurchase activity. Section 4 provides an overview of short-term event-studies around repurchase announcements. The general conclusion is that, regardless of the repurchase method, stock prices increase significantly. Section 5 discusses to what extent various theories can explain this price increase. Section 6 shows that managers are able to time the market buy buying back stock when the shares are undervalued. Section 7 compares dividends and repurchases. Finally Section 8 summarizes the main findings and implications for corporate financial policy.

## References

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- [1] J. Aharony and I. Swary, “Quarterly dividend and earnings announcements and stockholder returns: An empirical analysis,” *Journal of Finance*, vol. 35, no. 1, pp. 1–12, 1980.
- [2] F. Allen, A. Bernardo, and I. Welch, “A theory of dividends based on tax clientele,” *Journal of Finance*, vol. 55, no. 6, pp. 2499–2536, 2000.
- [3] F. Allen and R. Michaely, “Payout policy,” in *North Holland Handbooks of Economics* (G. Constantinides, M. Harris, and R. Stulz, eds.), 2003.
- [4] V. Atanasov, S. Gyoshev, S. Szezcyk, and G. Tsetsekos, “Why large financial institutions buy long-term put options from companies,” Working Paper, Drexel University, 2004.
- [5] M. Bagnoli, R. Gordon, and B. L. Lipman, “Stock repurchase as a takeover defense,” *Review of Financial Studies*, vol. 2, pp. 423–443, 1989.
- [6] L. S. Bagwell, “Shareholder heterogeneity: Evidence and implications,” *American Economic Review*, vol. 81, no. 2, pp. 218–221, 1991.
- [7] L. Bagwell, “Dutch auction repurchases: An analysis of shareholder heterogeneity,” *Journal of Finance*, vol. 47, no. 1, pp. 71–140, 1992.
- [8] M. J. Barclay and C. W. Smith, “Corporate payout policy: Cash dividends versus open market repurchases,” *Journal of Financial Economics*, vol. 22, pp. 61–82, 1988.
- [9] T. Barnes, D. Burnie, and E. Gunay, “Note sur les rachats via bourse au Canada (1987–1995),” *FINECO*, vol. 7, no. 2, 1997.
- [10] E. Bartov, “Open market stock repurchases as signals and risk-changes,” *Journal of Accounting and Economics*, vol. 14, pp. 275–294, 1991.
- [11] H. Bierman and R. West, “The acquisition of common stock by the corporate issuer,” *Journal of Finance*, p. 687, December 1966.



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- [12] F. Black, "The dividend puzzle," *Journal of Portfolio Management*, vol. 2, pp. 5–8, 1976.
- [13] M. Bradley and L. Wakeman, "The wealth effect of targeted share repurchases," *Journal of Financial Economics*, vol. 11, pp. 301–328, 1983.
- [14] A. Brav, J. R. Graham, C. R. Harvey, and R. Michaely, "Payout policy in the 21<sup>st</sup> century," *Journal of Financial Economics*, vol. 77, pp. 483–528, 2005.
- [15] P. Brockman and D. Y. Chung, "Managerial timing and corporate liquidity: Evidence from actual share repurchases," *Journal of Financial Economics*, vol. 61, pp. 417–448, 2001.
- [16] D. Brounen, A. de Jong, and K. Koedijk, "Corporate finance in Europe: Confronting theory with practice," *Financial Management*, vol. 33, no. 4, pp. 61–101, 2004.
- [17] K. Chan, D. L. Ikenberry, and I. Lee, "Do firms knowingly repurchase stock for good reasons?," Working Paper, University of Illinois at Urbana-Champaign, 2001.
- [18] F. Choi and S. Chen, "The differential information conveyed by share repurchase tender offers and dividend increases," *Journal of Financial Research*, vol. 20, pp. 529–543, 1997.
- [19] B. Chowdhry and V. Nanda, "Repurchase premia as a reason for dividends: A dynamic model of corporate payout policies," *Review of Financial Studies*, vol. 7, pp. 321–350, 1994.
- [20] R. Comment and G. Jarrell, "The relative power of Dutch-auction and fixed-priced self-tender offers and open market share repurchases," *Journal of Finance*, vol. 46, no. 4, pp. 1243–1271, 1991.
- [21] D. O. Cook, L. Krigman, and J. C. Leach, "An analysis of SEC guidelines for executing open market repurchases," *Journal of Business*, vol. 68, pp. 289–315, 2003.
- [22] D. O. Cook, L. Krigman, and J. C. Leach, "On the timing and execution of open market repurchases," *Review of Financial Studies*, vol. 17, pp. 463–498, 2004.
- [23] L. Dann and H. De Angelo, "Standstill agreements, privately negotiated stock repurchases and the market for corporate control," *Journal of Financial Economics*, vol. 11, pp. 275–300, 1983.
- [24] L. Y. Dann, "Common stock repurchases: An analysis of returns to bondholders and stockholders," *Journal of Financial Economics*, vol. 9, pp. 113–138, 1981.
- [25] L. Dann, R. Masulis, and D. Mayers, "Repurchase tender offers and earnings information," *Journal of Accounting and Economics*, vol. 14, pp. 217–251, 1991.
- [26] D. J. Denis, "Defensive changes in corporate payout policy: Share repurchases and special dividends," *Journal of Finance*, vol. 45, pp. 1433–1456, 1990.
- [27] S. Dereeper and F. Romon, "The use of open market repurchase programs in France," Working Paper, Europlace Institute of Finance, 2003.
- [28] A. Ditmar, "Why do firms repurchase stock?," *Journal of Business*, vol. 73, pp. 331–355, 2000.

- [29] R. D'Mello and P. K. Schroff, "Equity undervaluation and decisions related to repurchase tender offers: An empirical investigation," *Journal of Finance*, vol. 55, pp. 2399–2424, 2000.
- [30] A. Dunsby, "Share repurchases, dividends and corporate distribution policy," Working Paper, Wharton School of the University of Pennsylvania, 1994.
- [31] E. Fama and K. French, "Common risk facts in the returns of bonds and stocks," *Journal of Financial Economics*, vol. 33, pp. 3–56, 1993.
- [32] E. Fama and K. French, "Financing decisions: Who issues stock?," *Journal of Financial Economics*, vol. 76, pp. 549–582, 2005.
- [33] E. Fama, "Market efficiency, long-term returns and behavioral finance," *Journal of Financial Economics*, vol. 49, pp. 283–306, 1998.
- [34] G. W. Fenn and N. Liang, "Corporate payout policy and managerial stock incentives," *Journal of Financial Economics*, vol. 60, pp. 45–72, 2001.
- [35] D. Franz, R. Rao, and N. Tripathy, "Informed trading risk and bid-ask spread changes around open market repurchases in the Nasdaq market," *Journal of Financial Research*, vol. 18, pp. 311–327, 1995.
- [36] J. Fried, "Insider signaling and insider trading with repurchase tender offers," *University of Chicago Law Review*, vol. 67, no. 421, 2000.
- [37] J.-M. Gaspar, M. Massa, P. Matos, R. Patgiri, and Z. Rehman, "Can buybacks be a product of shorter time horizons?," *Journal of Financial Economics*, vol. 76, no. 1, pp. 135–166, 2005.
- [38] G. D. Gay, J. R. Kale, and T. N. Noe, "Dutch auction share repurchases," *Economica*, vol. 63, pp. 57–80, 1996.
- [39] W. Gray, "The self-tender repurchase anomaly," Working Paper, University of Chicago, 2005.
- [40] G. Grullon and D. Ikenberry, "What do we know about stock repurchase?," *Journal of Applied Corporate Finance*, vol. 13, no. 1, pp. 31–51, 2000.
- [41] G. Grullon and R. Michaely, "Dividends, share repurchases and the substitution hypothesis," *Journal of Finance*, vol. 57, pp. 1649–1684, 2002.
- [42] G. Grullon and R. Michaely, "The information content of share repurchase programs," *Journal of Finance*, vol. 59, pp. 651–680, 2004.
- [43] W. Guay and J. Harford, "The cash-flow permanence and information content of dividend increases versus repurchases," *Journal of Financial Economics*, vol. 57, no. 3, pp. 385–415, 2000.
- [44] M. Hertz and P. Jain, "Earnings and risk changes around repurchase tender offers," *Journal of Accounting and Economics*, vol. 14, pp. 252–274, 1991.
- [45] A. Hovakimian, T. Opler, and S. Titman, "The debt-equity choice," *Journal of Financial and Quantitative Analysis*, vol. 36, pp. 1–23, 2001.
- [46] D. Ikenberry and T. Vermaelen, "The option to repurchase stock," *Financial Management*, pp. 9–24, Winter 1996.
- [47] D. Ikenberry, J. Lakonishok, and T. Vermaelen, "Market underreaction to open market repurchases," *Journal of Financial Economics*, vol. 39, pp. 181–208, 1995.
- [48] D. Ikenberry, J. Lakonishok, and T. Vermaelen, "Stock repurchases in Canada: Performance and strategic trading," *Journal of Finance*, vol. 55, pp. 2373–2397, 2000.

100 *References*

- [49] N. Isagawa, "Open market repurchase and stock price behavior when management values real investment," *The Financial Review*, vol. 25, pp. 95–108, 2000.
- [50] D. Isakov and C. Perignon, "Repurchasing shares as a second trading line," Working Paper, Simon Fraser University, 2005.
- [51] M. Jagannathan, C. Stephens, and M. Weisbach, "Financial flexibility and the choice between dividends and stock repurchases," *Journal of Financial Economics*, vol. 57, pp. 355–384, 2000.
- [52] M. C. Jensen and W. H. Meckling, "Theory of the firm: Managerial behavior, agency costs and ownership structure," *Journal of Financial Economics*, vol. 3, no. 4, pp. 305–360, 1976.
- [53] M. C. Jensen, "Agency costs of free cash flow, corporate finance and takeovers," *American Economic Review*, vol. 76, no. 2, pp. 323–329, 1986.
- [54] M. Jensen, "The agency costs of overvalued equity and the current state of corporate finance," *European Financial Management*, vol. 10, no. 5, pp. 545–548, 2004.
- [55] C. Jolls, "The role of incentive compensation in explaining the stock repurchase puzzle," Mimeo, Harvard Business School, 1998.
- [56] P.-R. Kadapakkam and S. Seth, "Trading profits in Dutch auction tender offers," *Journal of Finance*, vol. 43, no. 1, pp. 294–306, 1994.
- [57] P.-R. Kadapakkam and S. Yildirim, "Examination of tender offer stock repurchases by closed-end funds," Working Paper, University of Texas at Austin, 2004.
- [58] K. M. Kahle, E. Dyl, and M. Banyi, "Measuring share repurchases," Working Paper, University of Arizona, 2005.
- [59] K. M. Kahle, "When a buyback isn't a buyback: Open market repurchases and employee options," *Journal of Financial Economics*, vol. 63, pp. 235–261, 2002.
- [60] J. Kale, T. Noe, and G. Gay, "Share repurchase through transferable put rights: Theory and a case study," *Journal of Financial Economics*, vol. 25, pp. 141–160, 1989.
- [61] S. Kamma, G. Kanatas, and S. Raymar, "Dutch auction versus fixed-price self tender offers for common stock," *Journal of Financial Intermediation*, vol. 2, pp. 277–307, 1992.
- [62] K. Klassen and R. Sivakumar, "Stock repurchases associated with stock options do represent dollars out of shareholders wealth," Working Paper, University of Waterloo, 2001.
- [63] A. Klein and J. Rosenfeld, "The impact of targeted repurchases on the wealth of non-participating shareholders," *The Journal of Financial Research*, vol. XI, pp. 89–97, 1988.
- [64] B. Kracher and R. R. Johnson, "Repurchase announcements, lies and false signals," *Journal of Business Ethics*, pp. 1677–1685, 1997.
- [65] J. Lakonishok and T. Vermaelen, "Anomalous price behavior around repurchase tender offers," *Journal of Finance*, vol. 45, no. 2, pp. 455–477, 1990.
- [66] W. Lane, "Managerial discretion in the repurchase of common stock," Unpublished Ph.D. Dissertation, University of North Carolina at Chapel Hill. 1976.

- [67] M. A. Lasfer, "The market valuation of share repurchases in Europe," Working Paper, City University Business School, 2002.
- [68] H. Leland and D. Pyle, "Information asymmetries, financial structure and financial intermediation," *Journal of Finance*, vol. 35, pp. 305–319, 1977.
- [69] E. Lie and H. J. Lie, "The role of personal taxes in corporate decisions: An empirical analysis of share repurchases and dividends," *Journal of Financial and Quantitative Analysis*, vol. 24, pp. 533–552, 1999.
- [70] E. Lie, "Do firms undertake self-tender offers to optimize capital structure?," *Journal of Business*, vol. 75, pp. 603–638, 2002.
- [71] E. Liljeblom and D. Pasternack, "Share repurchases, dividends and executive options: The effect of dividend protection," *European Financial Management*, 2005. Forthcoming.
- [72] R. Litzenberger and K. Ramaswamy, "The effects of dividends on common stock price: Tax effects or information effects," *Journal of Finance*, vol. 37, pp. 429–443, 1982.
- [73] K. Li and W. McNally, "Information signaling or agency conflicts: What explains Canadian open market repurchases?," Working Paper, University of British Columbia, 1999.
- [74] T. Loughran and J. Ritter, "Uniformly least powerful test of market efficiency," *Journal of Financial Economics*, vol. 55, pp. 361–389, 2000.
- [75] M.-O. Lucke and D. Pindur, "Riding the hat curve; Why shareholders should tender their shares in repurchase programs," *Financial Markets and Portfolio Management*, vol. 11, pp. 358–377, 2002.
- [76] K. R. Marks, "The stock market performance of firms repurchasing their own shares," *The Bulletin*, vol. 1, pp. 1–73, 1976. New York Graduate School of Business.
- [77] Y. Masui, "Taxation of share repurchases in Japan," *European Taxation*, pp. 416–419, November/December 1998.
- [78] R. Masulis, "Stock repurchase by tender offer: An analysis of the causes of common stock price changes," *Journal of Finance*, vol. 35, pp. 305–321, 1980.
- [79] W. F. Maxwell and C. Stephens, "The wealth effect of repurchases on bondholders," *Journal of Finance*, vol. 58, pp. 895–919, 2003.
- [80] W. McNally, "Open market repurchase signaling," *Financial Management*, vol. 28, pp. 55–67, 1999.
- [81] W. Mikkelson and R. Ruback, "Targeted repurchases and common stock returns," *RAND Journal of Economics*, vol. 22, pp. 544–561, 1991.
- [82] J. Miller and J. McConnell, "Open market share repurchase programs and bid-ask spreads on the NYSE: Implications for corporate payout policy," *Journal of Financial and Quantitative Analysis*, vol. 30, no. 3, pp. 365–382, 1995.
- [83] M. H. Miller and M. S. Scholes, "Dividends and taxes: some empirical evidence," *Journal of Political Economy*, vol. 90, pp. 1118–1141, 1982.
- [84] M. Mitchell and E. Stafford, "Managerial decisions and long-term stock price performance," *Journal of Business*, vol. 73, pp. 287–329, 2000.
- [85] S. C. Myers and N. S. Majluf, "Corporate financing and investment decisions when firms have information that investors do not have," *Journal of Financial Economics*, vol. 5, no. 2, pp. 147–175, 1984.

102 *References*

- [86] S. C. Myers, "Determinants of corporate borrowing," *Journal of Financial Economics*, vol. 5, no. 2, pp. 147–175, 1977.
- [87] J. M. Netter and M. L. Mitchell, "Stock repurchase announcements and insider transactions after the October 87 crash," *Financial Management*, vol. 18, pp. 84–96, 1989.
- [88] T. Nohel and V. Tarhan, "Share repurchases and firm performance; new evidence on the agency costs of free cash flow," *Journal of Financial Economics*, vol. 49, pp. 187–222, 1998.
- [89] J. Oded, "Why do firms announce open-market repurchase programs?," *Review of Financial Studies*, vol. 18, no. 1, 2004.
- [90] A. R. Ofer and A. V. Thakor, "A theory of stock responses to alternative corporate cash distribution methods: Stock repurchases and dividends," *Journal of Finance*, vol. 42, no. 2, pp. 365–394, 1987.
- [91] D. Oswald and S. Young, "What role taxes and regulation? A second look at open market repurchase activity in the United Kingdom," *Journal of Business Finance and Accounting*, vol. 31, no. 1–2, pp. 257–292, 2004.
- [92] S. B. Perfect, D. R. Peterson, and P. P. Peterson, "Self-tender offers: The effect of free cash flow, cash-flow signaling and measurement of Tobin's q," *Journal of Banking and Finance*, vol. 19, pp. 1005–1023, 1995.
- [93] J. C. Persons, "Signaling and takeover deterrence with stock repurchases: Dutch auction versus fixed price tender offers," *Journal of Finance*, vol. 49, pp. 1373–1402, 1994.
- [94] U. Peyer and T. Vermaelen, "The many facets of privately negotiated share repurchases," *Journal of Financial Economics*, vol. 75, pp. 361–395, 2005a.
- [95] U. Peyer and T. Vermaelen, "The nature and persistence of buyback anomalies," Working Paper, INSEAD, 2005b.
- [96] G. E. Porter, R. L. Roenfeldt, and N. W. Sicherman, "The value of open market repurchases of closed-end fund shares," *Journal of Business*, vol. 72, no. 2, pp. 257–276, 1999.
- [97] E. Raad and H. K. Wu, "Insider trading effects on stock returns around open market repurchase announcements: An empirical study," *Journal of Financial Research*, vol. 43, no. 1, pp. 45–57, 1995.
- [98] R. Rau and T. Vermaelen, "Regulation, taxes and share repurchases in the United Kingdom," *Journal of Business*, pp. 245–282, 2002.
- [99] W. Rees, "The impact of open market equity repurchases on UK equity prices," *European Journal of Finance*, vol. 53, pp. 353–370, 1996.
- [100] S. Ross, "The determination of financial structure: The incentive signaling approach," *Bell Journal of Economics*, vol. 8, pp. 3–29, 1977.
- [101] W. G. Schwert, "Anomalies and Market Efficiency," in *Handbook of the Economics of Finance*, vol. 21, Elsevier, North Holland, 2003.
- [102] L. Scott, W. H. Mikkelson, and M. M. Partch, "Managerial trading around share repurchases," *Journal of Finance*, vol. 47, pp. 1947–1961, 1992.
- [103] L. Shyam-Sunder and S. Myers, "Testing static tradeoff against pecking order models of capital structure," *Journal of Financial Economics*, vol. 51, pp. 219–244, 1999.

- [104] A. K. Singh, M. A. Zaman, and C. Krishnamurti, "Liquidity changes associated with open market repurchases," *Financial Management*, vol. 23, pp. 47–55, 1994.
- [105] S. Sinha, "Share repurchase as a takeover defense," *Journal of Financial and Quantitative Analysis*, vol. 26, no. 2, pp. 233–244, 1991.
- [106] C. Stephens and M. Weisbach, "Actual share reacquisitions in open market repurchase programs," *Journal of Finance*, vol. 53, pp. 313–333, 1998.
- [107] R. M. Stulz, "Managerial control of voting rights: Financing policies and the market for corporate control," *Journal of Financial Economics*, vol. 20, pp. 25–54, 1988.
- [108] G. Tsetsekos, D. Kaufman, and L. Gitman, "A survey of stock repurchase motivations and practices of major corporations," *The Journal of Applied Business Research*, pp. 15–21, 1998.
- [109] N. Vafeas and O. M. Joy, "Open market repurchases and the free cash flow hypothesis," *Economic Letters*, vol. 48, pp. 405–410, 1995.
- [110] T. Vermaelen, "Common stock repurchases and market signaling," *Journal of Financial Economics*, vol. 9, pp. 139–183, 1981.
- [111] T. Vermaelen, "Repurchase tender offers, signaling and managerial incentives," *Journal of Financial and Quantitative Analysis*, vol. 19, pp. 163–181, 1984.
- [112] J. W. Wansley, W. Lane, and S. Sarkar, "Management's view on share repurchase and tender offer premiums," *Financial Management*, pp. 97–110, 1989.
- [113] S. J. Weisbenner, "Corporate share repurchases in the 1990s: What role do stock options play?," Working Paper, University of Illinois at Urbana-Champaign, 2000.
- [114] J. F. Weston, M. L. Mitchell, and J. J. Mulherin, *Takeovers, Restructuring and Corporate Governance*. Fourth ed., 2004. Pearson Education Inc.
- [115] J. F. Weston and J. A. Siu, "Changing motives for share repurchases," Working Paper, Andersen Graduate School of Management, UCLA, 2003.
- [116] J. B. Wiggins, "Open market stock repurchase programs and liquidity," *Journal of Financial Economics*, vol. 17, pp. 217–229, 1994.
- [117] H. Zhang, "Share repurchases under the commercial law 212-2 in Japan: Market reaction and actual implementation," *Pacific-Based Finance Journal*, vol. 10, pp. 287–305, 2002.
- [118] H. Zhang, "Share price performance following actual share repurchases," *Journal of Banking and Finance*, vol. 29, pp. 1887–1901, 2005.