

CHAPTER 3 : LITERATURE REVIEW

The popularity of share repurchases programmes have attracted considerable academic research in the USA over the last two decades. Some of the preferred areas of share repurchases studies include the use of event-study methodology to determine the influences of share repurchases announcements on the share prices performance of companies announcing the programmes, and the motivations or reasons to explain why companies undertake share repurchases programmes. Other studies that are different from this mainstream are to examine the effects of actual share repurchases activities on corporate performance, thereby addressing a question whether repurchases create value.

Substantial studies have been carried out with regards to share repurchases. As mentioned earlier, most of these studies examine shares market reactions to the announcements of share repurchases programmes. They find some support for each of the theories, and suggesting that there is more than one explanation for share repurchases. Some of the principal theories are described herewith.

The information signalling hypothesis proposes that manager signal favourable information about the company by initiating repurchasing shares programmes. Information asymmetry exists between the managers of a company and outside investors. Thus, an announcement initiating a share repurchases programmes conveys the information about the company's rosy future to the outside investors. The signal communicating management's confidence in the future of a company is interpreted as a message that the company's share is undervalued. The companies which usually cite undervaluation as the primary motivation for the repurchases, support the signalling hypothesis (Tsetsekos, Kaufman and Gitman 1988).

Vermaelen (1981) examines 243 open market share repurchases announced between 1970 and 1978. Using standard event study methodology, the author finds a two-day (day -1 and day 0) average abnormal return of 3.37%. He also observes a long and gradual decline in the price of the shares, which is reversed by the announcement of the open market stock repurchases programmes. The price change subsequent to the open market stock repurchases programmes announcement is of permanent character and stabilises at the 2% level sixty days after the announcement. Both the selling and holding shareholders realise a positive wealth effect. The findings of this study support the signalling hypothesis. Companies repurchase share through regular market transactions in order to reissue it to insiders through share options and deferred compensation plans. Thus, repurchase activity is perceived as a transfer of ownership from general shareholders to insiders. The willingness of managers to increase their holdings conveys positive information to the market, regarding the under valuation hypothesis and future cash flow of the company. The market, subsequently, adjusts upwards the cash flow expectations for the repurchasing companies, resulting in a permanent increase of the price.

Comment and Jarrell (1991) study supports the signalling hypothesis. This study compares the relative signalling power of fixed-price tender-offers, dutch-auction self-tender-offers and open market share repurchases. Their sample includes 165 dutch-auction and fixed-price tender-offers completed between 1984 and 1989 and 1197 common share repurchases announced between 1985 and 1988. Contrary to prior studies, when selecting their sample companies, they do not exclude open market repurchase announcements with confounding news or re-assumption announcements of ongoing authorisations. Using standard event-study methodology, they report a seven-day excess return on announcement of both fixed-price tender-offers and dutch-auction tender-offers at 12.3% and 8.3% respectively. They find dutch-auctions to be favoured by large companies while self-tender-offers to be favoured by smaller companies, which have a higher average percentage

of insider holdings. These results are consistent with signalling, since large companies are closely monitored and significant under-valuation is unlikely. For open market repurchases, they find a 2.3% average three-day excess return. They document the same qualitative under performance (preceding the repurchase announcement) as Vermaelen (1981). The positive announcement effect reverses the prior trend and stabilises the market price at a higher level. Overall, open market repurchases produce the lowest average returns of the three types of repurchases examined. Large open market repurchases announcements (over 20% of outstanding shares), produce an average excess return of 6%, which is comparable to the effect of dutch-auctions. The percentage of shares sought in a repurchase announcement is perceived as a signal of the magnitude of the under valuation of the company. They interpret their results as evidence supporting the signalling hypothesis.

McNally (1999) proves the existence of a signalling equilibrium for open market repurchases. The study presents a signalling model of open market repurchases that simulates the effects of a repurchase on the inside shareholders' utility. If insiders refrain from tendering, then they are exposed to more risk as repurchase increases his or her proportionate shareholdings. In addition, the repurchase also increases the riskiness of the company reason being the company pays cash and reduces its holdings of its least risky assets or it borrows and increases its leverage, which, indirectly increases the risk of its insiders. With mean utility, insiders of companies with greater expected earnings experience less disutility from the added risk and opt to repurchase more than insiders of companies with lower expected earnings. Thus, after examining 700 US repurchases, McNally reports that if insiders are risk averse, this signalling model yields three implications as below:

1. The repurchase proportion is positively related to the market's valuation. Hence, market value increases as the quantity repurchase increases. This implication is consistent with both Comment and Jarrell (1991) and

Ikenberry and Vermaelen (1996) report that the repurchase proportion is significantly positively related to the announcement return.

2. The market's valuation is increasing in the riskiness of the firm's earnings. Ikenberry and Vermaelen (1996) also find a significant positive relationship between the company's total risk and the announcement return.
3. The market's valuation is increasing in the prior level of the shareholder's shareholdings.

Free cash flow is cash flow in excess of that needed to fund all projects that have positive net present values when discounted at the relevant cost of capital. Conflicts of interest between shareholders and managers (agents of shareholders) over payout policies are especially severe when the company generates substantial free cash flow. The free-cash-flow hypothesis argues that the managers of a company with free cash flow, which results from the exhaustion of all positive net present value projects, are likely to have incentives to the excessive consumption of perquisites, the pursuit of negative net present value projects, or the managerial entrenchment, thereby destroying shareholder value. Thus, share repurchases provide a means of allocating excess cash and therefore increase market value. In other word, a share repurchase aligns the interests of managers and investors and reduces agency costs, thereby increasing company value.

Woods and Brigham (1966) employ the life cycle theory of the company to explain the corporate decision to repurchase shares. During the expanding phase of operations, a company without excess cash flows functions as a net accumulator of capital. A company in its mature stage is characterised by the existence of excess cash flows. Mature value-maximising companies should distribute some of the excess cash through share repurchases. Share repurchases present advantages to both shareholders and management. Shareholders favour share repurchases over dividends because of the

preferential tax treatment of capital gains. Managers may prefer to accumulate treasury share for acquisitions and share options, or as a takeover defence. Treasury share repurchases financed by new debt can be used to alter the capital structure towards a higher debt ratio. Finally, the authors provide two corporate decision rules : a) to repurchase whenever market value falls below book value and b) whenever treasury share falls below a target level. In a nutshell, the authors argue that lack of investment opportunities and the theory of life cycle of the company, prescribe companies to repurchase their shares with available excess cash balances when in retracting industries. The above argument, however, is unable to explain alone the observed positive repurchase announcement effect.

Jensen (1986) develops free cash flow theory that explains, among others, the benefits of debt in reducing agency costs of free cash flows. The author combines the 'lack of investment opportunities' with the agency costs of free cash flow, provides an alternative explanation of the observed positive wealth effect. This theory predicts that prices will rise with unexpected increases in payouts to shareholders (or promises to do so) as debt reduces the agency costs of free cash flow by reducing the cash available for spending at the discretion of managers. On the other hand, prices will fall with reductions in payments or new requests for funds (or reductions in promises to make future payments) as more cash under the control of managers. In summary, Jensen's theory documents that a share repurchase can increase value by decreasing free cash flow in situation if companies suffer decreased market value from principal-agent problems.

Howe, He, and Kao (1992) study the relationship between company value and free cash flow for companies that repurchase via fixed-price offers and do not find support for the principal-agent hypothesis. Since open market share repurchases reduce free cash by less than fixed-price offers, we do not expect the principal-agent hypothesis to explain the increase in value attending open market repurchases.

The insider-trading option model views share repurchases as an option for asymmetrically informed insiders to buy undervalued shares from uninformed outside shareholders through the facilities of the company. An open market share repurchases programme conveys a valuable option to buyback shares. Ikenberry and Vermaelen (1996) propose the insider-trading option. This hypothesis is to model the flexibility that managers have in open market repurchases programmes and to relate this to the market reaction to programmes announcements observed in practice. The announcement period returns represent the value of the option to take advantage of the outside shareholders. This is so as managers can exercise this option when they believe their shares are undervalued while foregoing repurchasing shares at other times. An open market share repurchases programme conveys a valuable option to repurchase shares. Thus, share prices should increase around the share repurchases programmes announcements to reflect the fact that the company has created an option to exchange the market value of the share for its true value. In other word, even if at the time of the share repurchases programmes announcements managers have no superior information, and the market price of the share is "fair", these programmes will typically contain valuable options, and the market reaction to programmes announcements should be positive.

Ikenberry, Lakonishok and Vermaelen (1995) conduct a study examines both short-term returns surrounding the announcement and long-run performance following the open market share repurchases announcements. Short-term performance is calculated over various window from 20 days before to 10 days following the announcement. The short-term abnormal returns are calculated in relation to the CRSP equal-weighted index of NYSE and ASE companies. Due to the fact that long run performances are more sensitive to the procedures used, the study pursue two different approaches. The first is the more common technique based on cumulative abnormal returns (CARs) relative to some benchmark. The second approach calculates long-run abnormal performance assuming a buy-and-hold strategy. For both of these

methods, abnormal returns are calculated relative to four benchmarks : the CRSP equal- and value-weighted indices of NYSE and ASE companies, a size-based benchmark, and a size- and book-to-market-based benchmark. The research is based on an extensive sample of 1,239 companies that announced between 1980 and 1990 that they would repurchase their own shares on the open market. All the companies in the sample are traded on the New York Stock Exchange (NYSE), the American Stock Exchange (ASE) or the NASDAQ Exchange. They document a share prices drift effect over a four-year period following open market share repurchases announcements and conjecture that undervaluation is the likely motivation for open market repurchases programmes for companies having high book-to-market equity ratios. The study reports that negative abnormal returns prior to the announcement, measured from days -20 to -3, totalling -3.07%. On an average, measured from two days before to two days following the announcement, a company's share rise by 3.5%. This finding is similar to the findings reported by other researchers examining repurchases announcements (for example, Vermaelen (1981), Comment and Jarrell (1991)). Also, the findings indicate that even one month after a repurchase programme is announced, the companies that announced share repurchases outperformed the market by an impressive 12% over the next four years. The authors say that investments in value companies reacquiring their own shares in the open market can reward investors with returns of as much as 45% above average market performance over a four-year period. The significant part of this study is that the market is surprisingly slow to respond to the announcements of many share repurchases ie market underreacts to open market share repurchases announcements. Due to this substantial delay in the market response, there is a significant time for investors to buy undervalued shares that will tend to increase in value over the next four years. A buyback can be a positive signal about a company, but it is not immediately seen that way in the market. This study shows that an average response to the announcement of an open market share repurchases only increase the price of the shares by 3.5%. However, over a four-year period, investors who

bought and held shares that had been announced for repurchases realised gains on average of more than 12% above the gains of shares in a control portfolio. For value shares, the average gain was more than 45% over four years. This paper adds to a growing body of literature that finds that the market reaction to news is not always completed over short time periods, an assumption made in many event studies. The full impact of corporate announcements can extend over several years.

Ikenberry, Lakonishok and Vermaelen (2000) examine 1,060 open market stock repurchases programmes announcements by companies trading on the Toronto Stock Exchange (TSE) between 1989 and 1997. The Canadian's experience is similar to the earlier evidence obtained for US repurchases. The initial market reaction to repurchase programmes is small; the abnormal return is less than 1% in the announcement month. The market, on average, seems to underestimate the information contained in the repurchases announcements. Using a three-factor model, abnormal performance over a three-year holding period is about 7% per year. Also, this study documents that companies with high book-to-market ratios that announced a repurchase programme tend to experience higher post-announcement abnormal returns than low book-to-market companies.

The personal tax efficiency hypothesis suggests that share repurchases are a substitute for dividends because cash can be distributed to shareholders in a more tax-efficient manner through repurchases. Reasons being there is a gap between capital gains and ordinary income taxes and also deferred capital gains are generated. Hence, minimise shareholder tax liability on corporate cash payments by repurchasing shares rather than by paying out dividends. The leverage hypothesis claims that share repurchases can be used to attain the target financial structure of a company by shrinking the base of its common shares outstanding or increasing its financial leverage. Thus, debt-financed share repurchases provide a vehicle for capital structure adjustment, while offering the benefits of additional tax shields. A share repurchase should

increase the share price by increasing the interest tax shield if the company is below its optimal capital structure. Unfortunately, this tax-shield hypothesis enjoys little empirical support in the literature. Black and Scholes (1974) argue that companies cannot affect their value by changing their distribution policy. Hence, the tax explanations for an increase in company value are neither theoretically nor empirically attractive.