

price, use surplus cash and increase shareholders return by improving the earnings per share ratio.

Therefore, I wish to contribute on this area by extending previous two researches by examining the differences between repurchasing and non-repurchasing firms. In fact, this study indirectly identifies the differences of the two groups based on the proxies of their financial characteristic. Therefore, this study is expected to contribute meaningful determinants of corporate share buybacks. In, addition, the current study is the first of its kind in Malaysia (as evidenced from to-date access from online databases and publication) which researches the hypothesised motivations of shares buybacks in comparison between repurchasing and non-repurchasing firms.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

A large number of studies on share buybacks have been carried out mostly in the US. However, many of these studies Wood & Brigham(1966), Elton & Gruber(1968), Stewart (1976), Masulis (1980), Vermaelen(1981), Wansley & Fayeze (1986), and Davidson & Garrison (1989) focused on the realised return to shareholders of repurchase companies. All of these studies supports the evidence that buyback increase the share price.

In an attempt to investigate the motives behind share buyback, this study will look on the existing literature developed on variety of motivation hypothesis and evidences that support buybacks. Numerous buyback motivations have been researched extensively and many theories have been highlighted as possible motive for share buyback. This study shortlists some of the motives found in the financial literatures.

The purpose of this chapter is to unearth and evaluate previous body of literature that supports motivations of share buyback. For instance, by having literature study, the trend of share buyback and the underlying constructs of motivations are identified thoroughly in order to fulfil the objective of this study. This chapter will be organised as follows: Section 2.1.1 summarises extant literature on optimal leverage ratio hypothesis. Section 2.1.2 encapsulates literature on take-over deterrence hypothesis. While Section 2.1.3 and Section 2.1.4 focuses on the literature on free cash flow hypothesis and information signalling hypothesis. Finally, Section 2.2 summarizes the findings of the literature review.

2.1.1 Optimal leverage ratio hypothesis

According to the optimal leverage ratio hypothesis, a firm would be likely to repurchase their stock if its leverage ratio is below its target leverage ratio. Therefore, the firm's capital structure affects the firm's decision to repurchase its own stock. When managers distribute these extra cash to shareholders through repurchase, it reduces equity and increases the leverage ratio of the firm. Therefore, if firms wish to achieve is optimal leverage ratio, the manager may use share buybacks program to satisfy that objective (Bagwell and Shoven, 1988) and Opler and Titman (1996).

Grullon and Ikenberry (2000) refer to that although open-market repurchases have only a small effect on the capital structure in the short-run. While a firm distributes capital and excess funds to shareholders, it reduces its equity and increases its leverage ratio. Hovakimian, Opler and Titman (2001) test whether firms tend to move toward a target debt ratio when they either raise new capital or retire or repurchase existing capital. They find that more profitable firms have lower leverage ratios and are more likely to repurchase equity rather than retire debt. However, firms with higher current stock prices are more likely to issue equity rather than debt and repurchase debt rather than equity. Their results suggest that firms often take financing and repurchase decisions that offset their earnings-driven changes in their capital structures. They suggest that over-levered firms may choose cut back their investment expenditures when the stock prices are low. This evidence may explain why the leverage has a strong effect on investment

expenditures when firm with low market-to-book ratio (Lang, Ofek, and Stulz, 1996). Thus, a firm's capital structure will affect its decision to repurchase.

When the debt to equity is low, share buyback can be effective tool to adjust leverage ratio. Vermaelen(1981) proposes an optimum leverage hypothesis to explain abnormal returns during repurchase announcement. If firms are below their optimum capital structure, then share repurchase increase leverage, interest tax shield and improve firms' value (Skjeltop and Seggaard, 2004).

2.1.2 Take-over deterrence hypothesis

Many studies show how firms may use share buybacks as a tool to deter takeover attempts. Recently, cash-rich companies with discounted share prices are being targeted by aggressive investment funds. Many studies show how firms may use stock repurchases in order to deter takeover attempts. Harris and Raviv (1988) and Stulz (1988) theoretically model how firms issue new debt to conduct stock repurchase programs in order to deter takeover attempts. Bagnoli and Lipman (1989) find evidence that tender offers serve as defence against takeover attempts by signalling private information regarding the value of the firm. Bagnoli *et. al* (1989) suggests that stock repurchases can be effective in providing private information available to the public, and it can also be an effective measure to protect the firm against hostile takeovers by increasing the cost of tendering. Moreover, Bagnoli *et. al* (1989) concludes that managers repurchase stocks only if its benefits outweigh its costs of doing so. Costs are

inversely related to the value of the firm, a repurchase signals that the value of the stock is high, hence impeding takeover attempts. While a large body of empirical evidence supports the idea of takeover deterrence for fixed-price tender offers, there is conflicting evidence in relation to open-market stock repurchases programs. Dittmar (2000) fails to find evidence that takeover deterrence is a motive for open market stock repurchases, but Billett and Xue (2006) find a positive relation between open market stock repurchases and takeover probability of a firm.

Nevertheless, there are several reasons open market stock repurchases may deter takeover attempts. Bagwell (1991) show that repurchases may increase the costs incurred on bidders by reducing the number of shares held by those that value them the most. This conclusion comes under the assumption that, with the occurrence of a stock repurchase announcement, the shareholders who sell shares have relatively low valuations compared to the remaining shareholders. This would effectively increase the price of the actual offer. Moreover, extending from the perspective of the free cash flow hypothesis, an open market stock repurchase can alleviate agency problem, thereby reducing the potential gains of the acquirer in the event of a successful takeover.

Hirshleifer and Thakor (1992) develop a model in which managers increase leverage during periods of high takeover activity if they perceive their own firm to be performing poorly. The subsequent increase in leverage will result in a reduction in free cash flow and increase insider ownership, thus diminishing the potential gains for the bidder.

Finally, open market stock repurchases may impede possible takeover events since the financial flexibility helps the firms respond quickly to any takeover attempts.

2.1.3 Free cash flow hypothesis

Free cash flow hypothesis was developed on the idea that the firms are better to invest in their own share when there is no any good investment opportunity with good return when surplus cash available (Jensen, 1986; Grullon and Ikenberry). Oswald and Young (2004) argued that share buybacks are used to distribute surplus cash and exploit undervalued shares. The flexibility of open market repurchase allows the firms to take advantage of changes in share price and availability of cash flow (A.K. Mishra, 2005; Chen, and Wen, 2004).

According to Jensen (1986), firms repurchase stock to redistribute excess cash flow to shareholders. Agency theory suggests that firms with free cash in excess of their needs in investment opportunities have incentive to spend them on negative NPV projects that reduce the firm value. The financial slack may induce managers of such firms to often exploit shareholders' wealth by wasting firm resources on perquisite consumptions. This problem of excess cash flow is part of the larger agency problem that arises from the conflict of interest between management and investors. This problem is severe especially in companies with large cash flow, excess funds, and limited growth opportunities. If the market suspects that the financial slack is being wasted, it will discount the share price accordingly.

As a partial solution to this problem, Jensen (1986) suggests that by minimizing the amount of cash in control by the management, shareholders can significantly reduce the agency problem. Management, as an attempt to remove the discount on its share price, utilize stock repurchases and other payout methods as an integral measure to let investors know, or convince, that the firm is not overinvesting in negative NPV projects and its excess cash is being redistributed for the shareholders' benefit. Consistent with the free cash flow hypothesis, Grullon and Michaely (2004) find that the market reaction is more positive for firms that are more likely to invest. This result is in alignment with the assumption that stock repurchases may be associated with a reduction in investment opportunities. Firms that experience a reduction in investment opportunities thus experience a large incline in stock price by distributing its excess cash flow as a measure of mitigating the agency problem of free cash flow. Under the free cash flow hypothesis, both a dividend increase and a stock repurchase help alleviate the agency problem.

A stock repurchase may be preferred over dividends for several reasons. First, in open-market stock repurchases, the firm does not have a commitment to repurchase, and there is no expectation that the repurchasing announcement will occur on a regular basis. Therefore, a stock repurchase is a more flexible measure of redistributing earnings to its shareholders since a penalty is incurred if dividends are reduced. Second, stock repurchases may also be preferred over dividends due to the personal tax rate advantage of capital gains. There are tax incentives for repurchases relative to large dividends. Cash dividends are highly taxed whereas stock repurchases are taxed at the rate of capital gain. This is one reason stock price can increase due to stock repurchase.

Ofer and Thakor (1987), Barclay and Smith (1988) claim that the tax advantage of stock repurchase is a big factor that drives stock prices up. Capital gains tax of stock repurchases is often lower than the tax rate on dividend income. Only the portion of the stock repurchase that is a capital gain is taxed, and the investor can defer the capital gains tax until they realize the gain and sell their stock. In this sense, if dividends and stock repurchases are substitutes, then stock repurchases should be negatively related to a firm's dividend payout ratio.

Stephens and Weisbach (1998) study 450 open-market repurchase programs from 1981-1990 and find that share repurchases are negatively related to prior stock price performance. They also find that announced repurchase targets and abnormal event-day returns are positive and marginally significantly different from zero, which is consistent with Comment and Jarrell (1991) findings. They suggest that firms increase their purchasing amount depending on its degree of perceived undervaluation, and stock repurchases are positively related to levels of cash-flow. These imply that managers adjust their stock repurchases for unexpected firm's cash changes immediately.

Guay and Harford (2000) examine whether firms choose dividend increase to distribute relatively permanent cash-flow shocks and repurchases to distribute more transient shocks. They find that controlling for payout ratio and market assessment of cash-flow permanence, stock reactions of dividend increase are greater than stock repurchases. Stock repurchases provide valuable flexibility which allows managers to distribute

temporary cash-flows and do not commit to an increase in the future. In other words, when manager is not sure the level and duration of cash-flow, they prefer to choose stock repurchases than increase dividend, and the market will react correctly based on the payout method.

Jagannathan *et al.* (2000) also suggest that repurchases are used by firms with higher “temporary”, non-operating cash-flows and repurchasing firms also have much more volatile cash-flows and distributions. Nohel and Tarhan (1998) use Tobin’s Q to distinguish high- and low-growth firms and examine the difference between the information signalling and free cash-flow hypotheses. Their findings are that operating performance improvement only in low-growth (Tobin’s $Q < 1$) firms, and the gains are generated by more efficient utilization of assets, and asset sale, rather than improved growth opportunities. Long-run abnormal returns of low-growth firms are unrelated to performance, while the long-run returns of high-growth firms are correlated with performance. These imply that high-growth firms use stock repurchases to signal improving investment opportunities, while low-growth firms distribute excess cash.

2.1.4 Information signalling hypothesis

In financial literatures signalling hypothesis is the most cited reason for share buyback. According to information asymmetry theory, if managers believe that firms’ share is undervalued, the firms may repurchase as a signal to the market or investors, so the share price rises when this information is revealed. Miller and Modigliani (1961) pointed out that when the markets are incomplete, firms can convey information about future

cash flows by changing the dividend policy. Under the information signalling hypothesis, an increase in cash dividend provides shareholders with private information regarding the future earnings, whereas share buyback also contains private information regarding shares' current valuations. Bhattacharya (1979) and Vermaelen (1981) studies on the notion of information asymmetrical theory and found that payout decisions are explicit signal about future earnings, deliberately sent out at the same cost of payout i.e. cost of issuing new shares or investment opportunity cost. The information signalling hypothesis suggests that the share buyback announcement should be followed by positive price movement and should be activated by positive changes in the firm's expectations on future profitability or cash flows.

Lucas and McDonalds (1990) point out that given asymmetric information, managers have timing ability for share offerings and to wait for the share price to rise before issuing equity. Ikenberry, Lakonishok, and Vermaelen (1995) classify the sample into "value stocks" and "glamour stocks" and found that companies of "value stocks" announced share buyback program because of undervaluation. They suggest that firm size is a proxy for information asymmetries and find that the negative relationship between size and abnormal return is consistent with signalling hypothesis.

D'mello and Shroff (2000) took a test to understand whether firms that repurchase by way of fixed-price tender offers are undervalued relative to their economic value. They found that 74 per cent of repurchasing firms are undervalued and significantly higher

than the control firms. They suggest that the managers have private information about the firm's favourable future prospect than investors.

Vermaelen (1981) has suggested that the most commonly stated reason is to buy 'cheap' stock when managers perceive the firms' stock is undervalued by market analysts. Management announces share buybacks when they perceive the intrinsic value is higher than market price hence the price is undervalued. Such announcements and followed buy repurchases may create increase demand for shares thus raising the share price. Shareholders who need cash may exit the market by selling shares at premium and the remaining shareholders are benefit from enhanced share value (A.K. Mishra, 2005; Chan, Ikenberry, and Lee, 2001).

2.2 CONCLUSION

As highlighted in the Introduction section above, the aim of this chapter is to identify previous literature that able to support share buybacks motivations. In addition, a gap has been identified in Malaysia's environment in which previous study should be extending to examine the motivations of share buybacks between repurchasing and non-repurchasing firm. Therefore, this chapter leads us to the discussion of methodology and hypotheses to be tested, which will be detailed in next chapter.

CHAPTER 3: METHODOLOGY