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## **An overview of share buybacks: a descriptive case from Malaysia**

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## **Abstract**

This paper reviews the trends and motivations of share buyback programs and highlights the different hypotheses that motivate companies to repurchase their shares. It then explores the share buyback phenomena among Malaysian listed firms during the years from 2010 to 2015. The paper also investigates whether the Malaysian listed firms use share buyback programs to manage their earnings during this period. Based on our manually collected data, we find that 836 firms engage in share buybacks during the period from 2010 to 2015. We employ the criteria of Hribar et al. (2006) to check whether share buybacks strategies were used to manipulate earnings per share (i.e. accretive share buybacks). We find that more than 75% of firms engaged in accretive share buybacks at least one time during the period. Specifically, those firms undertake 636 accretive share buybacks with a value of RM 7,650 billion. This paper contributes to a better understanding of share buyback strategies in general and accretive share buybacks in the Malaysian context. Finally, our findings provide a reference point for relevant parties to improve the applicable regulations of share buyback schemes.

**Keywords:** Accretive share buybacks, earnings management, Malaysia

## **1 Introduction**

Payout policy has gained a significant attention since the mid-twentieth century. Miller and Modigliani (1961) provide a theoretical analysis of the relationship between firms' value and corporate payout policy. Their model indicates that payout policy would not affect firm's value in a perfect market. However, finding a perfect market is impractical due to several factors including information asymmetry, agency problems, tax differentials between dividend and capital gains, and transaction cost (Chen, 2006; Washer & Casey, 2011). Share buyback programs are one of payout policy methods in addition to regular and special dividends payments. The most popular method used by firms to buy back their share is open market buyback (Dittmar, 2000; Grullon & Michaely, 2002; Huang, 2016; Moser, 2009; Su & Lin, 2012).

In Malaysia, share buybacks activities became legally permitted in September 1997 after the Asian financial crisis 1997. Section 67A of Companies Act of 1965 was amended to implement open market share buyback programs. Section 112 (2) of the Companies Act 2016 also allows firms to be involved in share buyback programs. The primary aim of permitting share buyback was to stabilise the prices of shares in the stock market throughout the financial crisis (Isa, Ghani, and Lee, 2011).

Previous studies have identified several hypotheses that related to the motivation of firms to engage in share buyback programs worldwide, namely, the signalling undervaluation hypothesis (e.g. Abdul Latif & Taufil-Mohd, 2013; Babenko, Tserlukevich, & Vedrashko, 2012; Dittmar, 2000; Gan, Bian, Wu, & Cohen, 2017; Vermaelen, 1981), the free cash flow hypothesis (e.g. Abdul Latif & Taufil-Mohd, 2013; Dittmar, 2000; Evans, Evans, & Gentry, 2003; Fenn & Liang, 2001; Gan et al., 2017; Grullon & Michaely, 2002; Jensen, 1986), the dividend substitution hypothesis (e.g. Dittmar, 2000; Fama & French, 2001; Jiang, Kim, Lie, & Yang, 2013; Miller & Prondzinski, 2017), the liquidity changes hypothesis (e.g. Barclay & Smith Jr, 1988; Brockman & Chung, 2001; Ginglinger & Hamon, 2007; Hillert, Maug, & Obernberger, 2012; Moore, 2017), the tax savings hypothesis (e.g., Bagwell & Shoven, 1989; Jacob & Jacob, 2013; Korkeamaki, Liljeblom, & Pasternack, 2010; Moser, 2009; Oswald & Young, 2004; Rau & Vermaelen, 2002), the take over-deterrence hypothesis (e.g. Bagwell, 1991; Billett & Xue, 2007; Hai & Doan, 2012), the optimal capital structure hypothesis (e.g. Andriosopoulos & Hoque, 2013; Dittmar, 2000; Dixon, Palmer, Stradling, & Woodhead, 2008; Gan et al., 2017; Hovakimian, 2004; Miller & Prondzinski, 2017) and finally, the stock options hypothesis (Dittmar, 2000; Fenn & Liang, 2001; Hurtt, Kreuze, & Langsam, 2008; Kahle, 2002; Lamba & Miranda, 2010).

The above-mentioned hypotheses related to share buyback are not necessarily mutually exclusive and all have significant empirical support when tested in developed markets such as United States (US) and United Kingdom (UK), which operate in a corporate governance system with a comparatively high level of ownership dispersion, managerial autonomy and fraction of compensation that is performance-based (Brunswick & Columbia, 1998; Jansson & Larsson-Olaison, 2010). Managers attempt to raise share price when they become under substantial pressure.

Previous studies indicate that share buyback programs mostly serve as positive economic signals to boost shares price (R. Abdul Latif, Taufil-Mohd, Wan Hussin, & Ku Ismail, 2014; Albaity & Said, 2016; Grullon & Ikenberry, 2000; Grullon & Michaely, 2004; Dennis Oswald & Young, 2004; Peyer & Vermaelen, 2009; Pradhan & Kasilingam, 2016). However, managers may engage in share buyback activities to send a false signal to investors (Chan, Ikenberry, Lee, & Wang, 2010; Hamouda & Ben Arab, 2013; R.-S. Wu, 2012). Wu (2011) found that the efficiency of signalling by share buyback programs is weakened for firms with more entrenchment problems, implying that share buyback are less informative for firms with higher level of managerial entrenchment. Fried (2005) indicated that insiders use share buyback activities to indirectly trade the shares of firms for themselves at a low price.

Share buyback activities have also started to attract the attention of scholars as a device for real earnings management, which firm managers use to manipulate EPS (Bryan & Mason, 2016; Burnett, Cripe, Martin, & McAllister, 2012; Sitraselvi Chandren & Nadarajan, 2013; Farrell, Yu, & Zhang, 2013; Horan, 2012; Hribar, Jenkins, & Johnson, 2006). Share buyback is considered as an accretive share buyback when EPS is increased by at least one cent in comparison to the EPS without the effect of share buyback (Burnett et al., 2012; Hribar et al., 2006). Accretive share buybacks adjust EPS through the modified outstanding shares that represent the denominators of EPS equation, which is different from other real earnings management proxies that modify the nominator of EPS equation. Managers engage in accretive share buyback activities to manipulate EPS and match the forecasts of analysts (Bens et al., 2003; Bryan & Mason, 2016; Burnett et al., 2012; Farrell et al., 2014; Hribar et al., 2006). Hribar et al. (2006) and Myers, Myers, and Skinner (2007) provide evidence that firms employ share buybacks to increase EPS and avoid missing analysts forecasts. Firms may also use share buybacks to prevent an expected EPS decline or meet specific EPS growth targets (Bens, Nagar, Skinner, & Wong, 2003).

In Malaysia, Chandren and Nadarajan (2013) reported that more than 50% of share buyback programs over the period from 2001 to 2008 were accretive shares buyback, leading to significant change in the EPS of firms, which bought back their shares. They found a significant and positive association between accretive shares buyback and the EPS estimates of analysts. Recently, Abdul Latif, NishamTaufil, and Kamardin (2016) found that Malaysian firms frequently bought back their shares to manage reported EPS. Our paper explores the literature of share buyback practice through enriching investors and policymakers with a better understanding on share buyback practices in the Malaysian context. Our paper also provides conceptual review for the motivations that encourage firms to engage in share buybacks. Finally, we provide a more precise picture for investors and concerned stakeholders on whether share buyback activities are employed as a device to expropriate uninformed minority shareholders, or as a payout method to mitigate agency costs and to maximise firms value.

The rest of our paper is organized to describe the literature review in the share buybacks field. In methodology section, we clarify the process of data collection and how we distinguish between accretive and non-accretive share buybacks. We provide in the results

and discussion section a descriptive analysis about the practices of share buybacks and how those buybacks used buy firms' managers to manage earnings per shares. Finally, the conclusion section shows a summary and implications of our paper.

## **2 Literature Review**

### ***2.1 Overview of Share buyback programs***

Share buyback is a mechanism to return excess cash to the shareholders by whom a company buybacks its own shares from the targeted shareholders, individuals or groups at specific price (Grullon & Ikenberry, 2000). Firms are required to make announcement to inform shareholders its intention to engage in shares buyback activities, this process is named share buyback announcement. Then after specific period, the firms begin actually buying their shares from shareholders, this action is named the trading or implementation of shares buyback. There are basically three main methods firms use to undertake share buyback programs namely open-market share buyback, fixed-price tender offers and Dutch auction tender offers (Grullon & Ikenberry, 2000).

First, Grullon and Michaely (2004) and Rau and Vermaelen (2002) indicate that over the last decade, open market share buyback has become a main method of corporate payout policy used by public listed firms worldwide. With an open market share buyback program, firms announce the total number of shares authorized for potential buybacks, but offer no commitments about price, timing or even implementation of shares buyback (Grullon & Ikenberry, 2000). Open market share buybacks have been a big pay-back strategy for various US companies in recent years. According to Compustat database, firms expended about 26% of their annual profit on share buybacks between 1984 and 2000, more than 90% are open market repurchases (Grullon & Michaely, 2004).

Second, a fixed price tender offer is off market share buyback method (Zhang, 2008). Firms begin making announcement to invite shareholders for the tender of shares buyback over a certain period of time at a specified price reflecting some premium usually around 15 to 20 percent above the prevailing price in the market (Grullon & Ikenberry, 2000; G. Zhang, 2008).

Third, the Dutch-auction is also a fixed- price deal of share buyback (Grullon & Ikenberry, 2000). Through this method, firms start the tender by announcing that it is looking for tendering specified proportion of its shareholding by the shareholders at a range of premium above the shares' market value (Comment & Jarrell, 1991; Grullon & Ikenberry, 2000). The shareholders respond to the tender through informing the firm within a specified time the price and the number of shares they are willing to sell (Zhang, 2008). At the close period of the offer, firm collects the individual offers and categories them based on the price in order to determine the accurate price at which share buyback is achieved (Grullon & Ikenberry, 2000). The price breaks at the point when the aggregate number of shares meets the identified magnitude of the share buyback (Grullon & Ikenberry, 2000).

Recently, accelerated share buyback is an innovative method of share buyback that has become popular in recent years (Chemmanur, Cheng, & Zhang, 2010). By which the firms can buy back their shares from an investment bank whereby the investment bank borrows the shares from its customers or lenders and trade the borrowed shares to firms (Bargeron, Kulchania, & Thomas, 2011). There are two separate transactions should be applied for accelerated share buyback, which include acquisitions of treasury stock and a forward contract of corporate stock settlement (Chemmanur et al., 2010).

## ***2.2 Trends of Share Buyback Worldwide***

During the last decades the firms engaging in share buyback programs dramatically increase around the world. Share buybacks have initially been appeared in the United States (US) in the late 1960s, and become very popular by middle of 1980s (Cook, Krigman, & Leach, 2003) and have become an economically significant as a payout method (Ben-Rephael, Oded, & Wohl, 2011). In 1985 only 129 open-market share buyback programs were announced in US, whereas it reached 1,319 in 1996 (Jagannathan & Stephens, 2003). Prior studies report that firms in US have spent more money annually on shares buyback than on dividend payments over the last two decades (Grullon & Ikenberry, 2000; Grullon & Michaely, 2002, 2004; Haw, Ho, Hu, & Zhang, 2011; Skinner, 2008). Grullon and Michaely (2002) report that the volume of share buybacks increased from 4.8 percent relative to earnings in 1980 to 41.8 percent in 2000.

Share buyback programs have become popular also in other developed countries not only in US. For instance, in United Kingdom (UK) share buybacks have been started in early 1980s and occur with considerable frequency. Of the 489 share buyback announcements made by European companies from January 1980 to June 1998, firms in UK alone accounted for 60 percent (293) of such buybacks. Further, for the period from 2001 to 2004, the value of share buyback programs in UK is more than 68 billion Euro (Benhamouda & Watson, 2010). In Canadian market, only 62 announced open-market share buybacks in 1993 with a total value of 1,458.7 million Canadian dollars. However, there were 172 buyback programs with a total value of nearly 10 billion Canadian dollars in 1997 (Ikenberry, Lakonishok, & Vermaelen, 2000). According to Ginglinger and Hamon (2007), there were more than 350 firms embarking in share buyback over the period 2000- 2002 in France, with value greater than of 33,925 Euros.

In late 1990s, share buyback are initially allowed in Asian countries such as Thailand, Malaysia, Singapore, Korea and Taiwan (Rohaida Abdul Latif, 2010). Although share buybacks are new in these countries, the listed companies engaging in share buyback programs have significantly increased from the initiation year. For example, Wang, Lin, Fung and Chen (2013) show that in Taiwan 261 average of listed firms announced share buybacks each year from the inception year in 2000 until 2012. In Korea, Park and Jung (2005) show that more than 990 companies engaged in share buyback activities from 1994 to 2000. In Japanese market, Zhang (2002) indicates that simply two share buyback programs announced in 1995 including a total value around 25 billion Yen, while in 1997 there were

more than 35 share buyback activities were announced with a total value of 394.2 billion Yen. Similarly Hatakeda and Isagawa (2004) indicate that share buyback announcements dramatically increase in Japan for the period from 1995 until 1998. Brockman and Chung (2001) observe that only 8 Hong Kong share buyback programs in 1992, while in 1995 there were 100 shares buyback announcements.

### ***2.3 Regulations of Share Buyback in Malaysia***

In September 1997, share buyback programs have been allowed by Malaysian market authority. The main purpose of permitting share buyback programs was to stabilize the firms' share price during the Asian financial crisis (M. Isa et al., 2011). During the beginning period, only limited firms embarked in open market share buybacks. However, in subsequent fiscal years Malaysian firms started to gain sufficient knowledge related to buybacks and since then firms actively engaged in open market share buybacks activities in Malaysian market (Ramakrishnan, Ravindran, & Ganesan, 2007).

In July 1998, Malaysian Accounting Standards Board Technical Release (MASB-TR1) was launched in order to make share buyback behaviour allowable for public listed companies and treating their own purchased shares as treasury shares (Rohaida Abdul Latif, 2010). Shares buyback through open market is the only buyback method allowed for firms listed in Bursa Malaysia. (Part C, Chapter 12 of Bursa Listing Requirements). In Malaysia environment, there are many statutory bodies responsible for the establishment and implementation of share buyback programs namely; Securities Commission of Malaysia (SC), Companies Commission of Malaysia (CCM), Malaysian Accounting Standards Board (MASB) and Bursa Malaysia (BM) (Rohaida Abdul Latif, 2010).

According to section 67A of Companies Act 1965, there is several conditions must be met before Malaysian listed firms are allowed to engage in share buyback programs, first condition is that the company is solvent at the announcement date, the second is the buyback activities must be an open market buyback. The third one is that the buyback is made in honest intention and in the best benefit for the firm. Company Regulation Act 1966 in regulation 18A, part IIIA require the board of directors of firms to make a meeting in order to announce the intention of share buyback, which will be valid for six months from the date of the announcement. In addition, Regulation 18B requires the directors to prove the intention of share buyback from Bursa Malaysia within 7 days after the declaration of the intention.

Malaysian Accounting Standards Board (MASB) has revised MASB- TR1 (updated) in July 1999: Share Buybacks-Accounting and Disclosure Accounts which allow for consideration of share buyback programs by firms to use the share premium account. Under this standard and the Companies Act, the listed companies with actual share buyback have three choices namely to cancel the shares so bought, retain the shares bought under treasury shares or both cancel part and retain the others. The firms' directors are permitted, as provided for in paragraph (3B) of the Act, to distribute the treasury shares in the form of an equity dividend or to resell the treasury shares to the stock markets.



Furthermore, Malaysian Financial Reporting Standard (MFRS 132) in paragraph 33 requires firms that reacquire their own shares from the open market to deduct those shares from the firms' equity. The gain or loss should not be recognised in profit or loss on the shares bought back, sale, issue or cancellation of the firm's own equity. However, if the treasury shares are acquired and held by the entity or by other members of the consolidated group, consideration paid or received shall be recognised directly in the equity section. In addition, MFRS 132 in Paragraph 34 set out that the amount of treasury shares held is disclosed separately either in the statement of financial position or in the notes.

## ***2.4 Motivations of Share Buyback***

The following subsections discuss various hypotheses that are considered as the motivations for managers to engage in share buyback activities.

### ***2.4.1 Undervaluation Signalling Hypothesis***

Miller and Modigliani (1961) argue that firms can convey information related to future cash flow through adjusting payout policy in case of imperfect financial markets. Information asymmetries between firm's management and outside shareholders may create a signalling role in decisions of payout policy (Grullon & Ikenberry, 2000; Haji, 2014). Firms may engage in buyback activities for signalling undervalued shares to the market, which lead to a positive reaction in shares price around the events of shares buyback (M. C. Wu, Kao, & Fung, 2008). According to prior studies (e.g. Babenko et al., 2012; Dittmar, 2000; Abdul Latif & Taufil Mohd, 2013; Louis & White, 2007; Vermaelen, 1981) firms engage in share buyback programs to signal whether the shares of companies are currently undervaluation.

Dittmar and Dittmar (2008) conduct a survey which reveals that about 86 percent of managers support that undervalued shares were the largest dominant motive for share buyback. Makasi and Kruger (2013) provide evidence that managers use buyback policy to signal situations of undervalued shares for investors. However, Rau and Vermaelen (2002) provide evidence that signalling hypothesis is debatable since open market share buyback are not costly signals and they carry no obligation for the firm to actually buy back the shares.

In Malaysian context, Isa *et al.* (2011) report evidence the pre-buyback period experience consecutive price declines, which is consistent with the undervaluation signaling hypothesis. Recently, Abdul Latif and Taufil-Mohd (2013) empirically support this hypothesis. Their results show that Malaysian companies buy back their shares relatively for signaling undervaluation stock price and better operating performance.

### ***2.4.2 Free Cash Flow Hypothesis***

In addition to undervaluation hypothesis, free cash flow hypothesis predicts that firms have a tendency to exercise shares buyback when firms hold high level of free cash flows and have poor investment opportunities in order to mitigate agency costs caused by free cash flow surplus (Easterbrook, 1984; Jensen, 1986). Jagannathan and Stephens (2003) indicate that high level of free cash flow may negatively affect efficiency of firm capital operations. In

other words, share buyback programs allow firms to avoid investing in under investment projects and signal the reduction in agency costs to the market, thereby leading to a positive price reaction following share buyback announcements. The association between the firm and the market are increased by distributing cash to shareholders when firm have strong market monitoring, which lead to reduce agency costs (M. C. Wu et al., 2008).

Prior studies (e.g. Abdul Latif & Taufil-Mohd, 2013; Dittmar, 2000; Evans *et al.*, 2003; Fenn & Liang, 2001; Grullon & Michaely, 2002b; Jensen, 1986; Jiang *et al.*, 2013; Tsetsekos, Liu, & Floros, 1996) support the hypothesis of free cash flow. Dittmar (2000) find that US managers are more likely to buy back shares if they have high expected and unexpected cash flows. Furthermore, Fenn and Liang (2001) provide strong support for excess cash flow hypothesis, the predicted signs are statistically and economically significant with three payout level regressions (share buyback, dividends, and total payouts). Chahine, Zeidan and Dairy (2011) report evidence supporting the free cash flow hypothesis. However, Chan, Ikenberry and Lee (2004) examine free cash flows as incentive to share buyback announcement but fail to find significant support for free cash flow hypothesis.

### **2.4.3 Tax Saving Hypothesis**

According to Miller and Modigliani (1961) in the situation of absence taxes, transaction costs, agency cost and informational asymmetries between managers and shareholders, the impacts of shares buyback and dividends are indifferent. Their model established the foundation of subsequent studies on corporate payout policies namely share buybacks and dividend. Tax differentials between capital gains and dividend are one of the imperfection factors which make investors distinguish between dividends and share buyback to distribute cash to shareholders. A Ringgit of dividend will be more valuable than a Ringgit of capital gains when the tax on dividend is lower, and vice versa. Likewise, when tax rate of capital gains are lower, investors likely prefer share buybacks for dividend. Chen (2006) argues that investors may have bias evaluation on company's value due to their discernment among dividend and capital gains. The tax advantage hypothesis assumes that investors may prefer to invest in firm which its corporate payout policy is in line with the best interests to them. Consequently, managers would attempt to make decision related to payout policy to consistent with the interest of their shareholders (Kawano, 2014).

Lie and Lie (1999) investigate the impact of shareholder taxes on the choices of corporate payout within various tax systems in US. They find that firms with low different tax rate between dividend and capital gain have a tendency to pay out cash to investors via shares buyback rather than as dividends. In a survey of 384 financial executives, Brav, Graham, Harvey and Michaely (2005) present that more than 65 percent of the respondents expressed dividend distribution decisions would not be affected by the decrease in dividend tax rates. In UK, a study of Rau and Vermaelen (2002) report evidence to support saving hypothesis of share buyback programs.

However, Oswald and Young (2004) replicate study of Rau and Vermaelen (2002) during the same period but using a more comprehensive sample. They show a different picture that the tax advantages fail to explain the surges in buyback activities. Moreover, Jacob and Jacob (2013) investigate taxation effect on corporate payout choice over 25 countries. They claim that taxation of dividend and capital gains are significant determinants for corporate payout choices internationally. Unlike developed countries such as US and UK, tax treatments of share buyback and dividends in Malaysia are indifferent (Rohaida Abdul Latif, 2010). According to Single-Tier Tax System issued during budget 2008, shareholders are exempted from payment of personal income tax on the dividends hence dividends are paid after corporate income tax (M. Isa et al., 2011).

#### **2.4.4 Dividend Substitution Hypothesis**

Share buyback and cash dividends are mechanisms used by management to return cash to shareholders (Grullon & Michaely, 2002). The substitution hypothesis indicates that managers make share buyback as a substitute payout method for dividends (Dittmar, 2000). Theoretically, when a firm paid cash dividends, its shares price would come down proportionally with the amount of dividends paid (Benhamouda & Watson, 2010). The announcement of corporate intention to buy back shares increasingly push the share price by an average return of 3 to 4 percent during the announcement period (Dittmar, 2000; Fama & French, 2001; Grullon & Michaely, 2002; Jiang et al., 2013). Positive price repercussion after buybacks certainly gives strong inclination for a firm to choose buybacks rather than cash dividends.

Bagwell and Shoven (1989) indicate that managers learn to substitute share buyback for dividends in order to reduce tax burden. Grullon and Michaely (2002) investigate the relationship between dividend forecast errors and buyback yields, the dividend forecast errors turn to be negative as buybacks yield increases. The evidence also shows a negative relation between share buyback expenditures and forecast errors of dividends. In the same line, study of Brown and Day (2006) test the association between share buyback and dividend changes in the environment without tax variation between capital gain and dividend payments . Their findings support the substitution hypothesis between dividends and share buyback.

Nevertheless, study conduct by Dittmar (2000) provides weak evidence to support the hypothesis that suggest company buy back its shares to substitute dividends. A survey employed by Brav et al. (2005) present that, for managers, dividend decisions are priority to investment decisions which are in turn priority to share buyback decisions. Whereas study of Abdul Latif and Taufil-Mohd (2013) in Malaysia find that firms consider shares buyback as complement to dividends but not as substitution.

#### **2.4.5 Optimal Capital Structure Hypothesis**

The principle of target capital structure has an primary role in several approaches of corporate financing (Hovakimian, 2004). This hypothesis argues that managers may employ share buyback to intentionally adjust the company's capital structure. For instance, a survey

conducted by Dixon et al. (2008) provide empirical evidence that a main motive of share buyback in the United Kingdom is to accomplish an optimal capital structure.

When firm's leverage are lower than the target ratio, a company is more likely to buy back their shares to reduce the level of equity and consequently increasing the debt ratio (Rohaida Abdul Latif, 2010; Andriosopoulos & Hoque, 2013; Dittmar, 2000; Dixon et al., 2008). A study of Fried (2005) finds evidence that companies may use shares buyback to discharge the required changes in capital structure among equity and debt. Hovakimian (2004) assumes that companies prefer equity adjustment (issuing or share buyback) than debts to reach their target leverage. However, the results show that company uses issuing debt rather than issuing equity or using share buyback to achieve the target leverage.

#### **2.4.6 Liquidity Changes Hypothesis**

There are two competing arguments of how share buyback programs can influence the shares liquidity (Chemmanur et al., 2010). The first argument suggests that share buyback may create competition for market producers and potentially increase the liquidity of the shares. The second argument is that, since managers have an informational advantage over outside investors and trade strategically on this information when purchasing shares in the open market under open-market share buyback programs, which will widen the bid-ask spreads of the firm's stock, thus reducing liquidity (Chemmanur et al., 2010). Consistent with the second argument, Barclay and Smith (1988) propose that US firms prefer pay dividends to shares buybacks, despite dividend tax disadvantages, because shares buybacks decline liquidity. Using annual bid-ask spread as a proxy for changes in liquidity, Barclay and Smith (1988) find that bid-ask spread during open market announcements increases, which means that a liquidity has decreased. Decreased liquidity implies that there is an increase in firms' cost of capital thus could lead to lower prices (Barclay & Smith, 1988).

However, McNally and Smith (2011) investigate the impact of Canadian open market share buyback on the liquidity and provide evidence that support role of share buyback in making stocks of the firms more liquid as comparison to the period prior to share buyback and non-share buyback days. Hillert et al. (2012) study the association between share buyback and liquidity. They show evidence that small share buyback consume liquidity whereas large activities of buyback enhance liquidity.

#### **2.4.7 Stock Options Hypothesis**

The innovations of using firms' stocks as compensation for executives and employees under stock options schemes may consider as one of the factors that explain the increasing in buyback trends (Dittmar, 2000; Kahle, 2002; Lamba & Miranda, 2010). Wu *et al.* (2008) document two reasons for companies with stock options to embark share buyback programs namely to fund outstanding executive-employee stock options and to get positive reactions for the price of stock options that exercisable in the close future. The relation among stock options and share buyback discuss in more details in sections 3.2.3 and 3.9.

#### **2.4.8 Takeover Deterrence Hypothesis**

All previous mentioned hypotheses of share buyback are related to the internal firms decisions that effects the company and its shareholders (Dittmar, 2000). Nevertheless, managers may employ share buyback decisions to affect the relationship between the company and outsiders (Bagwell, 1991; Billett & Xue, 2007; Dittmar, 2000; Hai & Doan, 2012). Dittmar (2000) argues that share buyback can increase the aquisition price since shares with the lowest reservation value have been selected in share buyback activities by shareholders. Therefore share buyback can be employed as tool to prevent takeover because undertaking in share buyback behaviour may lead to increase the lowest price of available shares (Bagwell, 1991).

#### **2.5 Economic Effect of Share Buyback Programs**

As mention earlier, prior studies report that the primary motivations for share buyback programs are undervaluation and free cash flow hypotheses, which explain the positive performance of shares for share buyback events (Dittmar, 2000; Grullon & Ikenberry, 2000; Grullon & Michaely, 2002; Kahle, 2002). Extant literature indicate that share buyback programs mostly serve as positive economic signals that are beneficial to investors (R. Abdul Latif et al., 2014; Grullon & Ikenberry, 2000; Grullon & Michaely, 2004; Dennis Oswald & Young, 2004; Peyer & Vermaelen, 2009).

Numerous studies focus on the short run period to examine the initial effect of buyback announcement on share price performance (Abdullah, 2007; Haw et al., 2011; Ikenberry et al., 2000; M. Isa et al., 2011; Mansor Isa & Lee, 2014; Khin, Tee, & Ying, 2011; H. Zhang, 2005), whereas the others focus on long run performance of firms (R. Abdul Latif et al., 2014; Lie, 2005; W. J. McNally & Smith, 2007; Su & Lin, 2012; Yook, 2010). Zhang (2005) examines effect of actual share buyback on share price performance. The study employs market model approach (MM) to compute cumulative abnormal return and divides the sample based on the size and book to market.

Further, Zhang (2005) finds that small companies gain higher abnormal returns in immediate market reactions to the event of buyback in related to large companies. Mudipalli and Ramana (2014) investigate the impact of open market share buyback announcements on performance of shares and find that shares are quite undervalued before the announcement of share buyback programs. They also provide evidence that positive abnormal returns after share buyback announcement indicate that market reacts positively to the news of share buybacks announcement.

#### **2.6 Share Buyback as a Real Earnings Management Device**

Prior literature reveals that firms manipulate their stated earnings to create upbeat earnings, to avoid declining earnings, and to meet or beat earnings forecasts (Burgstahler & Dichev, 1997; Burnett et al., 2012). Based on the guidelines of the capital markets, analyst expected EPS is generally considered as a performance benchmark (Burnett et al., 2012). Companies

that constantly meet or beat analysts' EPS expectations experience higher credibility and valuation premiums (L. D. Brown & Caylor, 2005; Graham, Harvey, & Rajgopal, 2005).

Managers have two wide classifications of mechanisms to engage in earnings management. First, accrual-earnings management is accomplished when managers want to control earnings effectively with accounting choices and forecasts (Bhaumik & Gregoriou, 2010; Leuz, Nanda, & Wysocki, 2003). Second, Real earnings management requires management decisions, including decisions on capital expenditure that influence both cash flows and reported earnings, research and development expenditures and share buyback programs (Burnett et al., 2012). Both mechanisms of earnings management are questionable since managers employ them to change firms' outcomes in order to mislead firms' investors or influence accounting-linked contractual provisions (Healy & Wahlen, 1999).

Real earnings management is occurred through manipulate operational activities that directly influence cash flows (Sun, Lan, & Liu, 2014). Roychowdhury (2006) has defined the activities of real earnings manipulation as deviations from standard business procedures attributable to managers' desire to trick at least some stakeholders into thinking in the usual course of operations that some financial reporting targets were achieved. Cohen *et al.* (2008) provide evidence that real earning management practice increase in the period after SOX, which means that firms have substituted accrual-based earning management by the methods of real earnings management.

Share buybacks that potentially increasing reported EPS are typically in form of open market share buybacks, occurring when firms bought back their own shares from the open market (Lin, Chen, You, & Chang, 2009; Vermaelen, 2005). This kind of share buyback is named accretive share buyback (Burnett et al., 2012; Hribar et al., 2006). The net impact of share buybacks on EPS depends jointly on three elements namely the timing of the buyback, the number of shares buyback and the forgone future returns from the cash used to buy back shares (Horan, 2012; Hribar et al., 2006). The first two elements, time and number shares bought back, increase EPS by decreasing the denominator of EPS equation. The timing of buyback is matters due to when the shares buybacks happen at the beginning of the financial period, it is usually removed from outstanding shares for the whole period, whereas if the shares buyback happens at the end of the fiscal period, the EPS denominator is not effected in that period (Farrell et al., 2013). However, the third element declines EPS by declining the numerator since forgone returns of cash used in the buyback. Share buybacks are only accretive when the timing and sum are adequate to offset the decrease in the forgone returns (Horan, 2012; Hribar et al., 2006).

Bens *et al.* (2003) examine employing shares buyback to mitigate EPS dilution caused by exercise of employee stock options. They find that share buyback increased in years when managerial stock options related to EPS dilution increases and annual earning is below the level required to sustain past EPS growth rates. In the same line, Hribar et al. (2006) indicate that firms engage in share buyback programs in order to meet analysts' EPS forecasts.

Further, Burnett *et al.* (2012) provide evidence that high audit quality firms are more likely to use share buyback programs to manage EPSs and less possibly to utilize accrual earnings management because the risk for deducting discretionary accruals is high .

In Malaysia, Chandren and Nadarajan (2013) examine whether firms listed in BM engage in the activities of accretive share buybacks. The authors also attempt to identify the nature of association between amount of accretive share buyback and EPS analysts’ forecast under lens of prospect theory. The results show that 251 of the sample observations of 453 shares buyback firms over years 2001 to 2008 are accretive shares buyback, which represent 55 percent of actual buyback activities as presented in figure 1.2. Furthermore, the paper’s results show that firms engage in accretive share buybacks in order to match analysts’ EPS expectations.

### 3 Methodology

We employed the descriptive approach to provide insights on the engagement of share buyback activities among Malaysian listed firms. We collected the data from Thomson Financial DataStream and the annual reports of Malaysian firms listed on Bursa Malaysia over the period from 2010 to 2015. We focus on these specific years to avoid the impact of the global financial crisis from 2008 to 2009. First, the treasury shares are collected from DataStream to identify the the firms with shares buyback activities. Subsequently, the data related to the value RM and numbers of actual shares buybacks are collected manually from the firm’s annual report that is available on the website of Bursa Malaysia (<http://www.bursamalaysia.com/market/>). The final sample is 836 firms, which are financial and nonfinancial listed firms that were involved in share buyback activities during the sample period.

We also demonstrated on the reasons behind undertaking share buybacks activities, specifically, in Malaysia that analyse the trend of financial restatements<sup>1</sup> and the reasons for restatements over a long period of time. We follow previous studies (Burnett et al, 2012; Chandren et al, 2015; Farrell et al, 2014; Hribar et al, 2006) to calculate accretive shares buyback, where they identify two steps for calculating accretive share buybacks. The first step is to compute EPS without considering the effect of shares buyback activities during the financial year (ASIF-EPS). We compute ASIF-EPS by assessing the denominator and numerator impact of accretive shares buyback on EPS as follows:

$$\text{ASIF-EPS}_{it} = \text{NI}_{it} / (\text{Outstanding shares}_{it-1} + 0.5 \times \text{Shares issued}_{it}) \dots\dots\dots (1)$$

Where,

**ASIF-EPS**<sub>it</sub> represents the estimated EPS in the absence of share buyback activities.

**NI**<sub>it</sub> represents the reported net earnings before comprehensive income available to common shareholders during the firm-fiscal year.

**Outstanding shares**<sub>it-1</sub> is the reported number of ordinary outstanding shares at the beginning of the firm-fiscal year.

**0.50** is a time-weighted average of the number of outstanding shares during the firm-fiscal year.

**Shares issued**  $it$  is the number of ordinary shares issued during the firm-fiscal year. Following Burnett et al. (2012), Hribar et al. (2006), and Horan (2012), the issued shares are calculated by the following equation;

$$\text{Shares issued } it = \text{ending outstanding shares } it - \text{beginning outstanding shares } it-1 + \text{number of shares bought back during the fiscal year } it \dots\dots\dots (2)$$

The second step of accretive buyback calculations is to compute the EPS difference (EPS.DIFF) between ASIF\_EPS and the reported EPS as presented in financial reporting. This paper calculates EPS.DIFF in the following equation:

$$\text{EPS.DIFF } it = \text{Reported EPS } it - \text{ASIF\_EPS } it \dots\dots\dots (3)$$

Where: **Reported EPS**  $it$  represents the reported EPS as it shown in the annual reports.

According to previous studies (Burnett et al., 2012; Farrell et al., 2014; Hribar et al., 2006), share buybacks are considered as an accretive share buyback if it leads to an increase in EPS at least by one cent (0.01) of a Ringgit. Based on the previous calculations, We found 106 listed firms that involved at least one time in accretive share buybacks to increase EPS by at least one cent of Ringgit during the study’s sample period as presented on Section 4.6.2.

Based on the previous criteria, 106 firms were involved in accretive buyback activities during the sample period from years 2010 to 2015 as shown in Table 4. Following existing literature (Abdul Latif, 2010; Bens et al., 2003; Chandren & Nadarajan, 2013; Hribar et al., 2006; Lamba & Miranda, 2010). These processes produce a sample comprising 637 observations of financial and non-financial listed firms involved in accretive share buybacks over the period from 2010 to 2015.

#### 4 Results and Discussions

In September 1997, share buyback programs have been allowed by the Malaysian regulations. The main purpose of permitting share buyback programs was to stabilize the firms’ share price during the Asian financial crisis (M. Isa et al., 2011). During the beginning period, only limited firms embarked in open market share buybacks. However, in subsequent fiscal years Malaysian firms started to gain sufficient knowledge related to buybacks and since then firms actively engaged in open market share buybacks activities in Malaysian market (Ramakrishnan et al., 2007).

Studies conducted by Ramakrishnan *et al.* (2007) and Abdul Latif (2010) show that more than 300 Malaysian listed firms that represent thirty percent of whole firms listed in the Bursa Malaysia engaged in share buyback announcement from 1997 to 2005. In Malaysia, data is not available of the actual share buybacks by companies through external data providers. However we were able to extract the treasury stock accounts from Datastream. Therefore, we first highlighted which companies repurchased their shares via the treasury stock accounts and then manually collected the data of the actual shares and value of each company. Table 1 show the number of firms engaged in shares buyback during the years 2010 to 2015, as well as the Ringgit value spent on buyback programs. As it appears in Table 1, listed firms embarking in share buyback activities significantly increased throughout the years from 2010 to 2015. Only 133 firm having treasury shares from buying back their shares in 2010,



whereas more than 260 firms engaged in buying back own shares in 2013. The Ringgit value (RM) of treasury shares in 2013 is 3.598 billion which are significantly greater than the value of treasury shares in 2010. The highest value RM of treasury shares was 4,944 billion in 2015.

Table 1: *Value RM of Treasury Shares of Malaysian Listed Companies from 2010 to 2015*

Years	Numbers of Share Buyback Firms	Total RM Value of Treasury Shares
2010	188	2,959,439,000
2011	193	2,401,343,000
2012	229	3,044,287,000
2013	262	3,597,759,000
2014	254	4,678,768,000
2015	259	4,944,345,000
Total	1,385	21,625,941,000

Source: DataStream.

We then have manually collected the data of actual share buybacks from the annual financial reports of each firms for the period from 2010 until 2015. Table 1 Panel A presents the sample distribution by year, while Panel B presents the sample distribution by industry which is based on the Bursa Malaysia classification. As presented in Table 2 Panel B, financial firms account for 4.8% of the sample. We purposefully did not eliminate financial firms since financial firms have actual share buyback during the sample period and can provide us with the complete picture.

Table 2: Sample distribution

**Panel 1: Sample distribution by Year**

Years	Observations	% Observations
2010	142	17.0%
2011	139	16.6%
2012	153	18.3%
2013	154	18.4%
2014	123	14.7%
2015	125	15.0%
Total	836	100.00

**Panel B: Sample distribution by industry**

Sector	Observations	% Observations
Industrial Products	259	31.0%
Trading/Services	158	18.9%
Properties	117	14.0%
Consumer Products	80	9.6%
Technology	64	7.7%
Construction	62	7.4%

Plantation	47	5.6%
Finance	40	4.8%
IPC	9	1.1%
Total	487	100.00

Table 3 shows the descriptive analysis of actual share buyback activities during the sample period from 2010 to 2015. It displays the number of firms involved in actual share buyback activities by Malaysian listed firms through the sample period. The table also presents the number and Ringgit value of shares buyback activities as well as the percentage of shares bought backs to outstanding shares. As shown in Table 2, the percentages ages of shares bought back yearly was less than 1% of their outstanding shares and average 0.76% for 836 shares bought back firms. These actual buyback percentages were substantially less than 10% of outstanding shares permitted by the Bursa Malaysia as share buybacks activities.

The percentage of share buyback shown in Table 3 was slightly lower than those reported by Abdul Latif (2010) and Abdul Latif et al. (2016), which were 1.6 and 1.7% respectively for the period from 1999 to 2010. The difference in the percentage of actual buybacks in This paper compared to earlier studies (Abdul Latif, 2010; Abdul Latif et al., 2016) was because these earlier studies included only actual share buybacks in their samples that form 1% or more of the outstanding shares. Whereas, Table 3 of This paper covers all the actual share buyback through the sample period from 2010 to 2015.

Table 3  
Actual Share Buyback Activities from 2010 to 2015

Year	Buyback firms	Percentage of Share Buyback		Numbers of Shares Buyback (million)		RM Value of Shares Buybacks (million)	
		Mean	Sum	Mean	Sum	Mean	Sum
2010	142	0.91%	2.39	340	3.37	478	
2011	139	0.64%	2.26	315	4.15	577	
2012	153	0.75%	5.91	904	9.37	1,434	
2013	154	0.66%	5.69	876	9.66	1,488	
2014	123	0.87%	8.99	1,106	18.85	2,318	
2015	125	0.73%	4.95	619	10.72	1,340	
Total	836			4,160		7,635	
Mean	139	0.76%	4.98		9.13		

Previous studies (Burrent et al., 2012; Farrell et al., 2013; Hribar et al., 2006) have argued that a share buyback is considered as an accretive share buyback if it caused a change in reported EPS by at least one cent. However, Table 3 shows the average percentage of shares bought back was 0.76% for the period 2010 to 2015, which is less than 1% of the outstanding shares. Consequently, the sample of This paper also focused on share buyback firms that engaged in accretive share buyback at least one time over the period from 2010 to 2015, which is consistent with the main objective of this study. This means that the listed firms with accretive share buyback were distinguished in the sample of this study. After excluding financial firms and incomplete observations, the study's sample covers 106 accretive share

buyback firms (637 observations) during the period from 2010 until 2015 as presented in Chapter Four, Section 4.6.2. In other words, the sample of our paper includes all observations of nonfinancial firms that involve in accretive share buyback from 2010 to 2015.

Figure 1 shows the number of firms listed on Bursa Malaysia that were engaged in actual share buyback programs over the period from years 2010 to 2015. The number of firms engaging in share buyback programs grew during this period from 120 to 160 firms. Figure 1.1 also shows the value RM of share buybacks through the period after the global financial crisis, which occurred in 2007 and 2008. This crisis caused a significant increase in the number of share buyback firms and the value of share buybacks during the subsequent periods. Accordingly, the value RM of share buybacks dramatically increased in the years between 2010 and 2014 and reached the highest point in 2014 at approximately 2.3 billion RM. This significant magnitude of value Ringgits and the numbers of share buyback firms listed on Bursa Malaysia create a questionable issue about the motivations of managers to become involved in share buyback activities, suggesting that share buyback activities have significant complications for the earnings of firms.

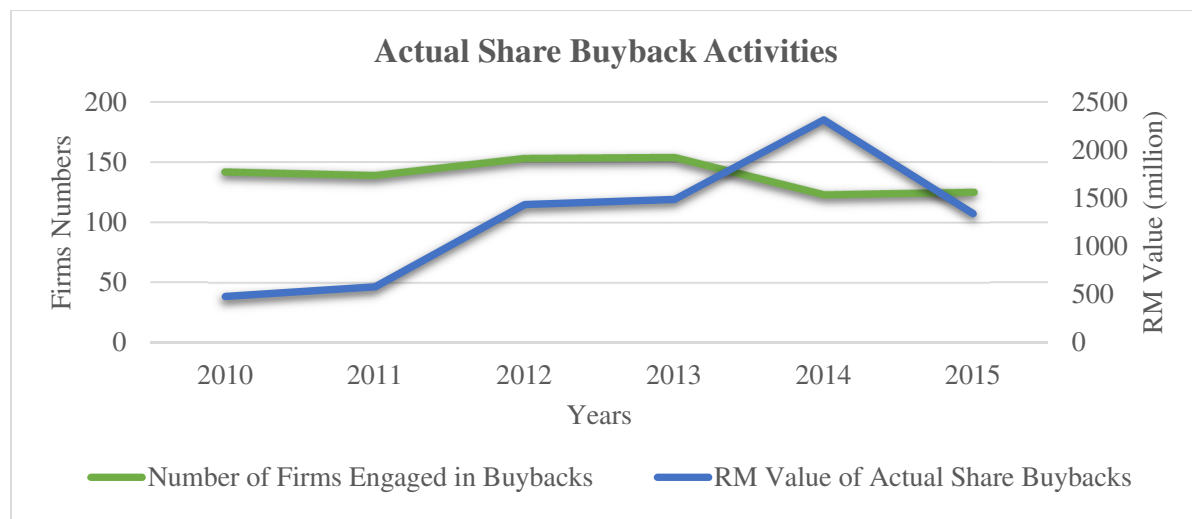


Figure 1  
*Number of firms and the RM Value of Actual Shares Buyback between 2010 and 2015*

Source: Firms' annual reports, Bursa Malaysia website

Table 4 presents the descriptive analysis of accretive share buyback firms through the sample period from 2010 to 2015. It shows the number of firms engaged in an accretive share buyback during the sample period. Table 5.2 also presents the percentage of accretive share buyback numbers to outstanding shares, as well as the number and Ringgit value of accretive shares buyback.

As appears in Table 4, the percentages of accretive share buyback to outstanding shares were equal and more than 1% for the entire sample period from 2010 to 2015. Accordingly, the average percentage of the number of accretive share buyback to outstanding shares for the

entire period was 1.3%. This rate means that the number of accretive buybacks significantly caused changes in reported EPS. This is consistent with the viewpoint of Burrent et al. (2012), Farrell et al. (2013), and Hribar et al. (2006) who argued that, if the share buyback practice adjusts EPS by one cent or more, this would be recognised as an accretive share buyback. Further, Table 4 shows 637 observations of accretive buyback firms during the sample period of our paper, which is shown in more detail in Table 4.

Table 4  
Details of Share Buyback Activities for Accretive Buyback Firms 2010 to 2015

Year	Number of Firms	Percentage of share Buyback		Numbers of Share Buyback (million)		RM Value of Share Buybacks (million)	
		Mean		Mean	Sum	Mean	Sum
2010	102	1.6%		2.8	289.9	4.1	421.8
2011	101	1.0%		2.7	272.5	3.8	379.1
2012	108	1.3%		8.6	932.9	14.9	1,605.4
2013	102	1.1%		8.4	855.4	14.3	1,454.9
2014	118	1.6%		10.1	1189.3	18.0	2,123.3
2015	106	1.0%		7.5	783.7	11.9	1256.8
Total	637				4,166.5		7,650.6
Mean		1.3%		6.54		12.01	

Table 4 and Figure 2 show the Ringgit value and numbers of accretive shares buyback during the sample period of This paper from 2010 to 2015. They show the number and value of accretive share buyback activities during the sample period, which reached a total of 3,931 million shares and RM 7,218.2 million in value. The Ringgit value of accretive buybacks gradually increased in the years from 2010 to 2013 and reached the highest point in 2014 at RM 2,123.3 million. Similarly, the number of accretive shares buybacks gradually rose through the sample period and reached its peak in 2014 with 1189.3 million shares as shown in Table 4 and Figure 2.

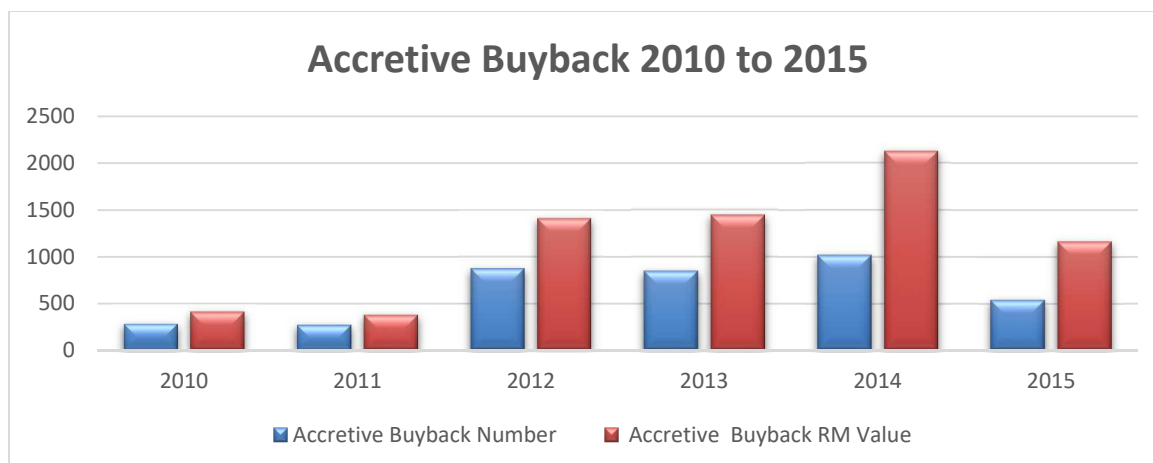


Figure 2

*RM Value and Shares Number of Accretive Buyback from 2010 to 2015*

Table 5 shows the details of the accretive share buyback firm observations over the sample period from 2010 to 2015. As it appears in the table, the total observations of accretive buyback firms were 637, which were classified as 272 (42.7%) accretive share buyback observations and 366 (60.9%) non-accretive share buyback observations. This paper reports 235 accretive share buyback firm-observations. This magnitude of accretive buyback firms is slightly higher than the study of Chandren et al. (2015) that found 220 accretive buyback firm-observations from 2001 to 2008. Unlike the study of Chandren et al. (2015) that focused only on accretive buyback observations and omitted non-accretive buyback observations of their sampling firms, This paper considers all the observations of listed firms that involved in accretive buybacks through the sample period from 2010 to 2015. In other words, this paper covers all the observations of accretive share buyback firms to determine the efficacy of corporate governance mechanisms in mitigating the use of accretive buyback as a tool for real earnings management.

Table 5

Details of Accretive Share Buyback Firm Observations from 2010 to 2015

Year	Total Observations	Accretive Share Buyback Observations		Non-Accretive Share Buyback Observations	
	Number	Number	Percentage	Number	Percentage
2010	102	39	38.4%	63	61.6%
2011	101	44	43.6%	57	56.4%
2012	108	57	52.5%	51	47.5%
2013	102	43	42.6%	59	57.4%
2014	118	46	38.7%	72	61.3%
2015	106	43	40.6%	63	59.5%
Total	637	272	100%	365	100%
Average	106	45	42.7%	61	57.3%

## 5 Conclusion

This paper aims to provide an overview on the phenomena of share buyback practices in Malaysian context. We explore whether the Malaysian listed firms use share buyback activities to manage their earnings. Based on the data by Thompson Reuters DataStream, 1385 Malaysian public firms have treasury share accounts. Based on those firms, we went through their annual financial reports and manually collected the actual shares buybacks, in RM value and shares. We found that 836 firms engaging in actual share buybacks during the period from 2010 to 2015. We utilised the criteria of Hribar et al. (2006) to distinguish accretive share buybacks and whether share buybacks significantly affect earnings per share. We found that more than 75% of firms were engaging in accretive share buybacks at least one time during the period. Specifically, those firms undertake 636 share buybacks with value RM 7,650 billion.

The findings of our paper are also useful to policymakers, regulators and market participants in many ways. First, the findings of our paper imply that regulatory bodies and investors should pay more attention to monitoring share buybacks. Managers are more likely to use accretive share buybacks to manage reported EPS, especially when the corporate governance systems and investor protections are weak. Accretive share buybacks as a mechanism for real earnings management have negative consequences on a firm's image. Firms encounter substantial opportunity costs as they spend valuable resources in undertaking an accretive share buyback, which could be invested in profitable projects that increase firm value in the long run. Our results are useful to regulatory bodies in Malaysia and elsewhere to have more insight regarding the trend and motivations of share buybacks.

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