Financial Anomalies: Evidence from Chinese Stock Markets

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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Abstract

The analysis of broad samples of equal-weighted and value-weighted returns of the Chinese security markets documents that abnormally high rates of return on small-capitalization stocks are to be observed during the month of March on both A-share markets. Contrary to the international experience of the January effect, the March effect can be seen as the turn-of-the-year effect in the Chinese security market as the national economic background and cultural background delay the turn-of-the-year from February to March.

1. Introduction

Financial anomalies such as day-of-the-week effect, turn-of-the-year effect and size effect etc. have been well documented. Evidence of such seasonalities is available for the mature stock markets in the developed countries. However, research concerning such anomalies in emerging stock markets is scarce. The stock market in China poses an interesting study, as the market is less developed and it is relatively new. Moreover, the Chinese stock market is different from the market of Europe or the U.S. It has many unique features such as the institutional features, the culture's background and investment behaviours. This study will focus on the financial anomalies of the turn-of-the-year effect in the Chinese market. This anomaly is also known as the January effect.

The Chinese government sanctioned the opening of the Shanghai Stock Exchange (SHSE) in December 1990 and the Shenzhen Stock Exchange in July 1991. Since then, the Chinese Market has experienced rapid growth. The Chinese market has become the second largest market after Japan in Asia, and it is also the largest emerging market in the world.

Along with the swift development of the Chinese economy in recent years, the Chinese stock market has already become the focus of the world since China's entrance into the World Trade Organization (WTO) on December 11th, 2001. In addition the financial market had gradually begun to open to foreigner investors, which attracted a number of foreign banks and investment organizations into the Chinese financial market. More and more overseas investors can participate in investing in the Chinese stocks. So studying the Chinese stock market is necessary.

Section two of the dissertation focuses on the literature review of financial anomalies. Section three briefly presents the features of the Chinese stock market. Section four discusses the data collection and methodology employed in this study while Section five discusses the test results. Section six discusses financial anomalies in the Chinese stock market. The last section contains the summary and conclusion.

2. Literature Review

Efficient market hypothesis is not only an important factor in measuring the health of a security market but also a significant precondition of a variety of financial theories. In an efficient market, security prices reflect all known information. Fama (1965) defined efficient market hypothesis into three common forms which are weak form efficiency, semi-strong form efficiency and strong form efficiency. However, the existence of seasonality in security markets has implications for both the study of market efficiency and tests involving return models. The existence of seasonal asset returns may be an indicator of market inefficiencies.

The January effect or turn-of-the-year effect is a famous example of seasonal anomalies in security markets throughout the world. At the turn-of-the-year, certain types of securities tend to produce positive abnormal returns. Stock prices have tended to rise markedly during the period starting on the last trading day of December and ending on the fifth trading day of January.

Rozeff and Kinney (1976) found a seasonal pattern in the New York Stock Exchange (NYSE) index over the period of 1904 to 1974. In particular, the average monthly return in January was about 3.5 percent, while the average return in other months was just 0.5 percent. The average returns in January appeared to be about seven times higher than returns for other months.

Keim (1983) found that the abnormal return in January is related to the stock market capitalization. In particular, small capitalization stocks outperform large capitalization

stocks in January, as small capitalization stocks post a higher abnormal return than large capitalization stocks. Reiganum (1983) confirmed that the January effect is largely a small capitalization phenomenon.

This anomaly was first observed in the U.S. market. However, the January effect not only exists in the U.S. market but the rest of the world as well. Many countries have documented the January effect since it was found in the U.S. Berges and McConnell (1984) through analysis of the Canadian stock market from 1973 to 1980, found that the January effect in Canada not only appears in small firms but large firms as well. A smallest-firm portfolio earns an average return of 8.15 percent in January and 1.13 percent for the rest of the year, while the largest-firm portfolio attains an average return of 5.4 percent in January and 0.83 percent for the rest of the year. Compared with the U.S market where the January effect is only pronounced for small capitalization, the explanation for the Canadian stock market is that most Canadian stocks are small compared to the U.S stocks and the average return of large stock in Canada may be equivalent to small or medium stock in the U.S. Athanassakos (1997) supported the finding that the January effect in Canada is not only a small firms phenomenon and suggested that the January effect is the result of the behaviour of institutional investors.

Clare et al. (1995) examined the seasonal fluctuations in the UK equity market. The result reveals that returns on the FT-A All share index exhibited a significant seasonality in January and the seasonal variation is robust across size sorted portfolios.

Brown, Keim et al. (1983) studied Australian stocks for the period 1958 to 1981. A January and August seasonal anomaly has been found. This finding strongly supports

the Tax-Loss-Selling Hypothesis because Australia has similar tax laws to the U.S but a July tax year.

Raj and Thurston (1994) examined the New Zealand stock market. They argued that since the financial year in New Zealand ends in March there should be an April effect if the Tax-Loss-Selling Hypothesis holds. However, the result showed that there is neither a January effect nor an April effect in the New Zealand stock market. The authors suggested that the absence of a January or April effect may be due to the small size and the poor liquidity of the market. Lately, Hasan and Raj (2001) using stock data ranging from 1983 to 1993 claimed that there is a January effect in the New Zealand stock market.

Kato and Schallheim (1985) examined the Tokyo Stock Exchange in Japan. January and June anomalies were found. The explanation for the January-June anomalies is that they are due to bonuses peculiar in Japanese society. Reyes (2001) supports this finding and adds that both January and June effects are small-capitalization stock phenomena.

Tong (1992) claimed that the January effect is not observed either in the South Korean market or Taiwanese market. However, a Lunar New Year effect in the Taiwanese market was found, but this does not seem to be related to the Tax-Loss-Selling-Hypothesis as the Taiwanese market had no capital gains tax during the sample period of 1980 to 1988. The Lunar New Year effect on Taiwan's market may be due to liquidity reasons.

Raj and Kumari (2006) examined the Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) in India. The January effect was not found in the Indian stock

market but April seasonal returns were found to be higher than nine other months. The April seasonal return occurs due to Tax-Loss-Selling as the financial year ends on 31st March and a capital gains tax is imposed by the Indian government.

Extending the January effect into the Chinese market, Ong (2006) studied Chinese seasonal anomalies including the turn-of-the-year effect, the turn-of-the-month effect and the day-of-the-week effect. They found that the January effect does not appear in either the Shenzhen or Shanghai A or B-share markets. But a high return in February has been found. Although the February effect is not statistically significant for the Chinese stock markets, the average returns posted in February are positive and appear substantially higher than those of the non-February months. This February effect may suggest that the turn-of-the-year for Chinese stock markets may occur during the Chinese Lunar New Year. After examining the calendar effects in Chinese stock market, Gao and Kling (2005) also found a monthly pattern of market return in both Shenzhen and Shanghai stock exchanges with the highest return in February, but it is insignificant as well. The explanation for the seasonal high return in February in China is that February is the turn-of-the-year in China, as the Chinese Lunar New Year usually begins in late January or sometime during February, rather than at the turn of the calendar year.

However, Zhang and Sun (2003) by examining the seasonal anomalies in China, reported that there is no January effect or a February Chinese New Year effect on the Chinese stock market. But a significant and positive March effect was found. The explanation is interesting in that they consider that the March effect in China reveals the political nature of financial anomalies in the country, as March is the political high

season in China and March political window-dressing is caused by political manoeuvres by the Chinese government, making a higher March return in the Chinese stock market.

There are three major issues related to the January effect or turn-of-the-year effect. Firstly, the Efficient Market Hypothesis is widely accepted by academic financial economists. According to this theory the January effect should immediately disappear as researchers believed that securities markets are extremely efficient in reflecting information about individual stocks and about the stock market as whole, but this January effect still exists after all these years. Secondly, why does the January effect appear to be a small-stock phenomenon? Finally, how does one explain this anomaly at the turn of the year?

2.1. The January Effect is a Challenge for the Efficient Market Hypothesis

A generation ago, the Efficient Market Hypothesis was widely accepted by academia. Most financial economists generally believed that securities markets were extremely efficient in reflecting information about individual stocks and about the stock market as a whole. In particular, in an efficient market, all subsequent price changes represent random departures from previous prices. In other words, information is immediately reflected in stock prices, and then tomorrow's price change will reflect only tomorrow's news and will be independent of the price changes today. But news is by definition unpredictable, thus resulting price changes must be unpredictable and random. As a result, the price fully reflects all known information.

However, the January effect was first introduced to the academia by Wachtel in 1942. It was again brought to academic attention by Rozeff and Kinney in 1976. After it was reintroduced in 1976 the January effect became widely known to the public (Haugen et al. 1996). Plenty of investors understood this celebrated anomaly of the financial markets or at least the majority of the professional investment community was very much aware of it. In other words, this information has been widely known. According to the Efficient Market Hypothesis, which asserts that financial markets are "informationally efficient", it is not possible for the January effect to consistently appear in the market, as the information about the January effect is well known and investors attempt to exploit it. Therefore, an injection of additional funds gets into the market before January, causing a rise in stock prices. As a result, the January effect should shift from January to December.

However, in fact, the January effect still appears even after its discovery. Haugen and Jorion (1996) studied the New York Stock Exchange from 1926 through 1993 and found no evidence that the January effect had disappeared from the New York Stock Exchange, even that the January effect is still going strong after its discovery. Furthermore, the authors provide two possible explanations for the persistence of the January effect. Firstly, the January effect is not a manifestation of market inefficiency, as it provides no opportunity for investors to earn abnormal rates of return, as the January returns of stock are tiny and trading costs are high. Secondly, the financial market is highly inefficient.

The reports from other countries are different. Gu (2006) found that the January effect exhibits a declining trend in five G7 countries. The effect is disappearing from Canada,

France, Germany, Japan and United Kingdom. In particular, the evidence of the January effect on the U.K. market is getting much weaker than before.

2.2. January Effect is a Small-Capitalization Phenomenon

Many reports suggest that the January effect is closely related to the market capitalization or stock size. For example, Reinganum (1983) examined the performance of stocks in different size classes and concluded that small stocks outperform in January. This finding is supported by Blume and Stambaugh (1983), Haugen and Lakonishok (1988) and Keim (1983). One puzzle of the January effect is why smallest-capitalization stocks tend to outperform largest-capitalization stocks in January. There are two categories of explanation. One is related to asymmetric information obstacles and the other is related to investment behaviour.

Rozeff and Kinney (1976) suggest that many firms announce their financial performance in January and that induces the January effect. That is because the information costs for large firms are less, thus large firms are more efficient than small firms, and so the January effect is more obvious in the small firms.

Another explanation relates to investment behaviour, especially for institutional investors. Basically, the January effect can be interpreted as a shift in the demand and supply for stocks occurring during the turn-of-the-year. But the question that remains is why the January effect appears to be much stronger for small-capitalization stocks. In

order to explain this, one would expect the strength of the demand shift to be stronger for small than for large capitalization stocks. This shift is related to the behaviour of investors. Haugen and Lakonishok (1988) suggested an explanation which related to the behaviour of portfolio managers. There are two incentives that make portfolio managers buy small stock at the year beginning. One is performance hedging and the other is window dressing.

Performance hedging asserts that most institutional managers receive performance-related bonuses at year-end if they outperform the benchmarks. Consequently, managers have an incentive to make their portfolio look increasingly like that index as January approaches by selling the small-capitalization stocks. After the financial year, they buy back stocks they believe will outperform in the future. These stocks are often small stocks. The process repeats itself in January as a new evaluation period begins.

On the other hand, investors realize that their profits depend on the performance of a fund, and in order to supplement their assessment, investors examine the manager's current holdings. These incentives make the portfolio managers apply window dressing, dumping their losers and replacing them with winners or well-known stocks at end of the year. This action makes the fund performance look good. At the beginning of the next year, they buy small stocks which they expect to surpass the benchmarks. This leads to the January effect for small stocks.

These explanations are based on portfolio managers' behaviour as they are interested in buying small stocks. Almost all professional money managers understand that small firm stocks have more chance of surpassing benchmarks. Consequently, they are more interested in buying small stocks. For example, a recent study by Goyal et al. (2007) of

NYSE, AMEX and NASDQA found that smallest market capitalization stocks produce an average monthly excess return of 6.66 percent which is about twice the 3.36 percent of the largest capitalization stocks.

2.3. The Explanations of the January Effect

There have been many attempts to explain the January effect in the financial market. However, this anomaly is difficultly to explain using traditional theories such as the Capital Asset Pricing Model (CAPM) or Efficient Market Hypothesis. Thus, researchers suggest new theories to try to explain the anomaly, but with no completely satisfactory answers. The most popular explanation for the January effect is the Tax-Loss-Selling Hypothesis. However, plenty of researchers argued against this hypothesis as they found evidence that the January effect can occur without Tax-Loss-Selling. But, at least, the Tax-Loss-Selling Hypothesis partly explains the January effect. Another frequently used explanation is the Portfolio-Rebalancing Hypothesis which is also called the Window-Dressing Hypothesis. Some researchers believe that insider trading by small-firm management is the cause of the January effect. However, it is difficult to find evidence to prove this hypothesis. The Liquidity Constraint Hypothesis is another explanation for the January effect. This reflects company bonuses paid at the end of year which increases the liquidity to the market and the extra money flows to the stock market which causes the January effect.

2.3.1. Tax-Loss-Selling Hypothesis

One of the primary explanations for the January effect is the Tax-Loss-Selling Hypothesis which was suggested by Wachtel (1942). Investors must pay taxes on net capital gains at the end of the year in some countries. In order to offset capital gains, the investors will sell poorly performing shares towards the end of the year to realize capital losses that can offset capital gains. After the tax year end, the January effect is formed as the selling pressure disappears and prices rebound to the equilibrium level. The manifestation on stock price is stock price decrease at the tax month then an increase after the tax month.

A number of researchers focused on the Tax Reform Act of 1986. This tax reform created an incentive for researchers to investigate the Tax-Loss-Selling Hypothesis in the U.S. The provisions of the Tax Act moved capital gains recognition from December 31 to October 31. This tax reform attempted to change the investment behaviour of investors. In order to offset capital gains, investors would sell poor stock before October 31 instead of selling before December 31. Hence the selling pressure for November would move to October. If the January effect is dominated by Tax-Loss-Selling the November effect may occur instead of the January effect.

Bhabra et al. (1999) studied the Tax Reform Act of 1986 in the U.S by using post-Tax reform data and pre-Tax reform data separately to examine the Tax-Loss-Selling Hypothesis. They found a significant pattern in November returns following the change in tax laws, which did not exist prior to the Tax Reform Act of 1986 and they claimed that Tax-Loss-Selling is a dominant explanation for the seasonality of stock returns. This result was supported by Johnsion and Paul (2005).

If Tax-Loss-Selling is a dominant explanation for such an effect, the January effect would disappear after tax reform. However, Haug and Hirschey (2006) argued that the January effect is unaffected by the Tax Reform Act of 1986. They found a persistent, continuing January effect after the tax reform.

The reports from other countries that have different financial years also give mixed results. For example, Reinganum and Shapiro (1987) studied the U.K. market and not only observed a January effect but an April effect as well. The April effect has been found in the U.K. as April is the end of the tax year in the United Kingdom. This result supports the Tax-Loss-Selling Hypothesis. Similar results were reported from the Australian market by Brown et al. (1983) who not only observed the January effect but also a July effect. This result also supported the Tax-Loss-Selling Hypothesis as Australian's tax year ends in June.

On the other hand, if the Tax-Loss-Selling theory is true, then we should not find a January effect in a country which doesn't have capital gains. Vanden and Wessels (1985) studied the Netherlands market where there is no capital gains tax. However, a January effect is found. In New Zealand there is no capital gains tax as well, but the January effect was found by Hasan and Raj (2001). Similar results were reported from the Japanese market by Kato and Schallheim (1985). Since there is no capital gains tax in these countries, researchers should not observe any January effect at all if the Tax-Loss-Selling Hypothesis is the only explanation. However, the January effect has been observed in these countries with no capital gains tax, thus Tax-Loss-Selling is not the only explanation for the January effect. Haug and Hirschey (2006) suggest that tax-motivated selling partly explains the January effect, but behavioural explanations are

more relevant to the January effect. Furthermore, they suggest window-dressing may be a cause of the January effect.

2.3.2. Portfolio-Rebalancing Hypothesis or (Window-Dressing Hypothesis)

Recently, a new explanation of the January effect has been proposed, which is the Portfolio-Rebalancing Hypothesis. This hypothesis asserts that the abnormal returns in January are caused by systematic shifts in the portfolio holdings of investors at the year end. In particular, portfolio managers engage in window-dressing by seeking to eliminate embarrassing losers from their portfolio prior to the end of important report periods, to promote positive perceptions of their performances in managing their clients' portfolios (Haugen et al. (1990), Haugen and J. Lakonisho (1988), Fedenia et al. (1990), and Athanassakos and Schnabel (1994)).

Haugen and Lakonishok (1988) propose that window-dressing is undertaken by managers at year end, in which they sell the recently weak stocks and buy some well-known stocks before the fund's holdings are made public, in order to give the appearance that they have been holding good stock all along. After the financial year end, the well-known stock will be sold immediately and the fund managers will buy back the small stock which could have a higher return than large-capitalization stocks. Subsequently, the January effect is exploited, as the fund manager sold small stock before the financial year end, leading to the decrease in stock price and bought it back after the financial year end, leading to an increase in small stock price.

O'Neal (2001) examined the residuals from Market Models to identify return patterns that are atypical around fiscal year ending. This study selected 37 mutual funds over a

period from 1995 to 2000. They found that consistent with window-dressing, equity funds display atypical return patterns around fiscal year ending and the evidence of window-dressing is the strongest in December.

Fedenia et al. (1990) developed a model to test the Portfolio-Rebalancing theory for institutional investors. Their model predicts that by optimally shifting portfolios to mimic a benchmark, successful investment managers lock in superior performance, while unsuccessful investment managers lock out possible termination. Price pressure, ensuing from re-entry, occurs at the turn of the year, when managers prefer to reverse benchmark matching strategies. After analysing seventy-seven mutual funds over the period 1969 to 1986, they provide some support for the Portfolio-Rebalancing theory.

However, Sias and Starks (1997) argue that the January effect is primarily a result of individual investor trading activity related to Tax-Loss-Selling rather than institutional window-dressing. They base this argument on their previous finding that losing stocks are driven by individual rather than institutional ownership.

2.3.3. Liquidity Constraint Hypothesis

The Liquidity Constraint Hypothesis suggests that during the end of the calendar year, periodic infusions of cash into the market, such as bonuses paid at the end of December, impact upon the market. Lu and Ma (2004) found that there was a strong connection between stock returns and the earnings information released in January. They concluded that the results suggest that the earnings are likely to be one important driving force of the January effect.

Ritter (1988) found that price movements of small companies are related to the buying and selling habits of individual investors at end-of-year. He argues that individuals apparently sell stocks which have decreased in price to realize tax losses. Then investors apparently reinvest in January because January buying can be increased by infusions from year-end bonuses or from the profit of other stocks on which long-term capital gains are being realized.

Kato and Schallheim (1985) found the evidence to support the Liquidity Constraint Hypothesis as they found a January and July seasonal anomaly in Japan where bonuses are paid at the end of December and June.

3. Features of the Chinese Stock Market

3.1 Historical Review

Before 1979, China had no capital market because the financial system in China was highly centralized. After 1986, the capital market began to be established and gradually expanded throughout the country. Currently, China's capital market holds various financial instruments such as bonds, stocks and funds. There are two stock exchanges which are the Shanghai Stock Exchange and the Shenzhen Stock Exchange in China.

The Shanghai Stock Exchange (SHSE) was established on November 26, 1990 and began operation with eight stocks listed on December 19 the same year. The Shenzhen Stock Exchange (SZSE) was established on April 11, 1991 with six stocks listed. Dual listing is not allowed across these two exchanges.

China's stock is further divided into A-Shares and B-Shares. A-Shares are listed and traded on the Shanghai and Shenzhen Stock Exchanges; they can be purchased and owned only by Chinese citizens. B-Shares are listed and traded on the Shanghai and Shenzhen Stock Exchanges; they could be purchased and owned only by foreign investors. Since February 2001, the Chinese government has opened the B-Share market to Chinese domestic investors. In the Shanghai Stock Exchange, B-Shares are quoted and traded in U.S. dollars. In the Shenzhen Stock Exchange, B- Shares are quoted and traded in Hong Kong dollars.

The Chinese stock market had operated under tight capital controls and restrictions on foreign investment in the domestic A-Share market. However, this has been changed since China entered into the World Trade Organization in December 2001. The Qualified Foreign Institutional Investors (QFII) scheme was implemented on December 2002, which enables foreign investors to invest in the A-Shares market. Although this policy has been implemented, the market has remained largely insulated from foreign investors.

3.2 Features of the Chinese Stock Market

The Chinese stock markets have their own features compared with other stock markets, such as capital structure, regulation and policy. China once was a nation of planned economy, and consistent with the historical background the government continues to interfere in the market to attain some purposes. One character of Chinese stock markets is that the government has an overwhelming influence. Heilman (2002) described the Chinese stock market as a policy-driven market as it is dominated by political calculations, policy mission and administrative interference. For this reason, to examine the Chinese seasonal anomaly becomes more difficult; seasonal anomaly examines investment behaviour of investors in a market, but the Chinese market not only involves investment behaviour of investors, but government behaviour strongly participates in the market as well.

Another character of the Chinese stock market is the share structure. There are three different share categories. About one third of the shares are ordinary shares which are tradable on the stock exchanges. Another third of the shares are legal person shares

which represent the part of the firm owned by other state firms and not tradable on the stock exchange. The last third of the shares is made up of state shares that are not tradable. So the effective free-float of the shares is low (Zhang et al., 2003). This share structure affects the risk profiles and future cash-flow opportunities of a company and makes the share price easy to be controlled by large capital. In another aspect, investors are discouraged from taking a buy-and-hold approach as trading is thin while volatility is high (Eun et al., 2002). Thus the excessive price movement and speculative activities are common in Chinese stock market (Mei et al., 2005). Chow and Lawler (2003) compared the Shanghai Composite index and the New York Stock Exchange composite index and reported that weekly returns on Shanghai stock are 17.5 percent, much higher than the New York Stock Exchange which is 9.48 percent. Also, Shanghai has a higher volatility than the New York Stock Exchange. Furthermore, Wang and Xu (2003) suggested that Chinese stock market is a highly speculative stock market and found evidence to support this by finding that round-trip trading costs approach 1 percent of the total transactions; the average annual turnover in China was 537 percent from 1996 to 2001. In such an environment, Chinese investors prefer short-term gains rather than a long-term investment object.

In the initial public offering (IPO) aspect, IPOs are hugely underpriced when issued and the returns are high at beginning when IPOs trade on the market. Gu (2003) reported that in some years, the average initial returns would be more than 1000 percent.

In this special investment environment, Chinese investors focus more attention on government policies than the company profile itself. There are some distinct features of Chinese government intervention such as occurred in 1994, 1995 and 1996. These interventions pushed the market up during the bear market.

The first interference by the Chinese government took place in late 1992 when the Shanghai index plunged to 386 point. The government managed to increase the market to 1172 point, an increase of about 300 percent. In August 1994, the Chinese government managed to push the Shanghai index from 325 to 1052 point making the market increase about 300 percent. In May 1995, a series of interventions make the Shanghai index increase from 547 to 962 point. The intervention in 1999 marked the beginning of a bullish market which pushed the market from 1050 to 2245 point within 2 years. In 2001 and 2002, the Chinese market was still bolstered by the government (Lin, 2005).

In the study reported here, we sought to make three contributions. Firstly, we are going to examine the four Chinese stock markets which are Shanghai A, Shanghai B, Shenzhen A and Shenzhen B to compare the investment behaviours between domestic and overseas investors. Secondly, we not only use value-weighted indices to examine the seasonal anomaly in the Chinese stock market but equal-weighted portfolio data as well. Thirdly, we rank the firms that are listed on the Shanghai A, Shanghai B, Shenzhen A and Shenzhen B share markets into five size classes to determine the size effect in the Chinese market.

4. Data and Methodology

In this study, we are going to use value-weighted indices and equal-weighted portfolio data to analyse monthly seasonality in the Chinese stock market. According to Lakonishok and Smidt (1988), Schwert (1990) and Haug and Hirschey (2006), they found that the evidence of January effect is stronger by using equal-weighted data than value-weighted data. Because the equal-weighted index represented a simple average of the stock prices for all listed companies, thus the equal-weighted index gave small companies greater relative influence than would be true in a value-weighted index. Lakonishok and Smidt studied monthly returns for Dow Jones Industrial Average (DJIA), a price-weighted market index of 30 largest-companies and found no evidence of a January effect. Schwert found little evidence of monthly seasonality in value-weighted indices by studying the Center for Research in Security Prices (CRSP) which small-company stocks have little weight. Haug and Hirschey studied both equity-weighted and value-weighted indices of CRSP from period 1802 to 2004. They found that average value-weighted portfolio returns for January were 1.1 percent and for the other 11 months of the year the return was 0.7 percent. However, by using equal-weighted portfolio returns, the average return for January was 6.05 percent versus average of 0.91 percent for other months.

Observably, to test such an effect by using an equal-weighted index is better than a value-weighted index as the January effect is a small capitalization phenomenon. Most researchers tested seasonal anomalies in the Chinese market by using value-weighted indices and researchers reported that there is no evidence of January effect or Chinese New Year effect.

In this cause, we are going to use both value-weighted indices and equal-weighted portfolio data to examine the monthly seasonality in the Chinese stock market. Also the companies that listed on each market are ranked into five size classes to determine the size effect in the Chinese stock market. This analysis covers the four Chinese stock markets which are:

SHA Share Index: Constituents for SHA Share Index are all listed A shares at Shanghai Stock Exchange.

SHB Share Index: Constituents for SHB Share Index are all listed B shares at Shanghai Stock Exchange.

SZA Share Index: Constituents for SHA Share Index are all listed A shares at Shenzhen Stock Exchange.

SZB Share Index: Constituents for SHB Share Index are all listed B shares at Shenzhen Stock Exchange.

Two different variables are used to analyse monthly seasonality which are the stock return and the market capitalization. The monthly share price has been collected from 1994 to 2006 for each stock, and it is used for monthly seasonality analysis. The market value has been collected from 1993 to 2005 for each stock, and it is used to determine size classes for the listed companies. The monthly data is sourced from the Datastream database. All data is carefully screened to ensure any missing values of the indices are handled correctly.

Shanghai A-share (SHA), Shanghai B-share (SHB), Shenzhen A-share (SZA) and Shenzhen B-share (SZB) indices are published by the Shanghai Stock exchange and Shenzhen Stock Exchange respectively and all of the indices are value-weighted indices where large companies dominate the index. Therefore in testing such an effect by using value-weighted index data it may be difficult to observe the seasonal anomaly in the Chinese markets. In this case, creating an equal-weighted portfolio index is necessary for monthly seasonality analysis.

Also, in order to determine the size effect, the firms that listed on the market are ranked into five size classes. The last day of a year market value is used to determine firms' size for the next year. Ranking the firms' market value by size from the lowest to the highest and dividing into five size classes, each class had 20 percent of the total firms. An equal-weighted portfolio index is created for each size class. As new firms have been listed every year, we add these firms into the equal-weighted portfolio. Table 1 shows the number of companies that we used as our sample to created equal-weighted indices in each year for each market.

The monthly returns are calculated as:

$$R_t = Ln(\frac{P_t}{p_{t-1}})$$

Where:

R_t *is stock return at month t.*

P_t *is share price at month t.*

The market values are calculated as:

$$MV_t = P_t \times S_t$$

Where:

MV_t *is market value at time t which represents the last day of the year.*

P_t *is share price at time t.*

S_t *is number of shares at time t*

The equal-weighted portfolio returns are calculated as:

$$I_{jt} = \frac{\sum_{i=1}^{N} R_{it}}{N}$$

Where:

I_{jt} *is average return for all the companies' returns at time t for portfolio j.*

R_{it} *is the monthly return for company i in month t.*

N *is number of companies.*

This paper uses the linear regression model to examine the monthly seasonality. To identify any possible trend of the January effect, one needs to compare the January average return with the average of the non-January months.

Model:

$$I_{jt} = \partial + \sum_{t=1}^{11} \beta_t d + \varepsilon_t$$

Where:

I_{jt} *is the monthly return in month t for portfolio j or index j.*

The ∂ *is the intercept of the regression which measures the average monthly returns.*

The regression slop β_t *measures the difference between the expected return for January and the other months of the year.*

d *is a dummy variable which indicates monthly average return related to its month.*

ε_t *is an error term.*

As we mentioned before, the Chinese stock market has its own features. These unique features make the analysis of turn-of-the-year anomaly difficult. Because of government interference, the share structure and the investment behaviour etc. make the market unusual compared with a mature market. For example, according to our equal-weighted portfolio data, in some periods of time the monthly return even reached 91.01 percent for the smallest size group of Shanghai A-share in August, 1994. For medium, big, large and largest size groups the highest returns are 84.78 percent, 101.61 percent, 92.06 percent and 95.68 percent respectively. The largest slumps for small, medium, big, large and largest size group were -38.79 percent, -38.94 percent, -38.66 percent, -35.89 percent and -33.98 percent respectively, in July, 1994. Basically, we are using a regression analysis to test the monthly seasonality. But these outliers may unduly influence and/or bias the measure of average return, and lead to erroneous conclusions.

In order to isolate any such effect it is necessary to set up criteria to analyse stock returns. We assume all the monthly returns are random and the returns on each class follow a normal distribution, therefore 95 percent of returns fall into two standard deviations away from the mean and we believe the return in the 95 percent range is normal in a market. The mean and standard deviation for each group size is calculated.

The standard deviations are calculated as:

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$$

Where: σ *is the standard deviation.*

x *stands for an entire list of numbers.*

$\bar{x}$ *simply means the arithmetic mean of all the numbers in the list.*

N stands for how many numbers there are in the list.

The 95% range is:

$$Uplevel = 2\sigma + \bar{x}$$

$$Lowlevel = -2\sigma + \bar{x}$$

Where: σ *is the standard deviation.*

$\bar{x}$ *simply means the arithmetic mean of all the numbers in the list.*

After eliminating the outliers that stock returns outside of the 95% range, we found these outliers are quite consistent with the government interference on the stock markets as we mention before. For all the four markets, the outliers are concentrated in July 1994, August 1994, April 1996 and June 1996. For Shenzhen A-share, there are more outliers that have been deleted. This may suggest that the Shenzhen A-share market is more volatile than the Shanghai A-share market. In other words, the events occurring on the Shenzhen A-share market persisted longer than on the Shanghai A-share market. For both B-share markets, we found the times of the outliers are not consistent with the A-share market. This may suggest that government interference on the A-share market did not influence the B-share market. Table 2 shows the outliers which are out of the 95 percent range and are eliminated from each market.

5. Results

Overall, according to our testing results, we find that there is no evidence of January effect in the Chinese stock market. Contrary to the international experience of January effect, the Chinese A-share markets post lower average returns in January. Some researchers suggest that there is a February effect as almost all of the Chinese New Year falls into February, so February can be seen as turn-of-the-year in China. According to this study, the evidence of February effect is not found either. But the mean returns in February are the second highest returns except for those in March. However, a robust and positive March effect has been found and it is significant at the 10 percent level for both A-share markets by using adjusted data, in particular, adjusted equal-weighted data shows a stronger March effect than adjusted value-weighted data. Evidence is provided that the monthly returns in March have larger means relative to the other months, and that the relation between abnormal returns and size is always negative and more prominent in March than any other month.

For the B-share markets we did not find any seasonal anomaly among January February and March either before the regulation reform or after the regulation reform[1]. Interestingly, all the results show that the mean returns in January for both B- shares before regulation reform are negative. Indeed, SHB shows a lowest negative return in January, significantly lower than some other months. However, after the regulation reform, the SZB share market shows a positive January effect only on the smallest portfolio size class.

[1] As we mention before, the Chinese government has changed the policy and opened the B-share market to Chinese domestic investors since February 2001. we separate the B-share markets into two periods to examine the monthly anomalies, as we believe domestic investors may change the original investment behaviour. On this basis, we attempt to determine whether the monthly anomalies are driven by investors' cultural background.

The size effect has been confirmed in both A and B-share markets as smaller size groups have higher returns than larger size groups. But the A-share market shows a stronger size effect than the B-share market. It may because B-share markets are all large firms making the size difference tiny.

Comparing the unadjusted data and adjusted data, we found that adjusting the data is necessary as the Chinese stock market is a policy-driven market which is driven by the government's interference, thus some incredible returns appear on the emerging market. These incredible returns can be seen as outliers and these outliers greatly influenced the results of the monthly anomaly analysis. Adjusting these data in the Chinese stock markets is necessary.

5.1 Testing results by using value-weighted returns for A-shares

The statistical test results by using unadjusted value-weighted data show that there is generally no January effect in either SHA or SZA share market (see Table 3, Panel 1). The fifteen average January returns on SHA and SZA are -0.04 percent and -0.17 percent respectively; both A-share markets have posted lower mean returns in January compared to the other months. After using the adjusted data value-weighted data, the results on Table 3, Panel 2 also show that the mean return in January is lower than other months. As a result, we confirmed that there is no January effect existing in the Chinese A-share markets, by using value-weighted data. Contrary to the international experience of January effect, the Chinese A-share markets post lower average returns in January.

Some researchers suggest that there is a Chinese New Year effect in the Chinese stock market as Chinese New Year is the-turn-of-year in China. The turn-of-the-year in China is not from the beginning of the calendar year. The Chinese New Years tend to occur in either late January or February and most of the Chinese New Years fall into February. In other words, the highest return tends to occur in February in the Chinese stock market compared with the international experience that highest mean returns occur in January where January is the turn-of-the-year. The February effect has been tested. The testing result by using unadjusted data in Table 4, Panel 1 shows that there are different results between SHA and SZA. The testing result for SHA shows that the mean return for February is positive and quite higher than other months, but it is not the highest one. Interestingly, the testing result for SZA shows that the highest mean return is in February, but it is insignificant. These results make the turn-of-the-year effect more elusive on the Chinese stock market. We expected the testing results on both A-share markets to be consistent as we believe the investment behaviour of all Chinese domestic investors is similar, so the highest mean returns should consistently appear in the same month, but the testing results by using unadjusted data suggest that there is different investment behaviour between SHA and SZA share markets. In contrast, by using adjusted data for the February test, Table 4, Panel 2 shows that after adjusting the data the testing results for both A-share markets are consistent as the results suggest that there are higher positive mean returns in February for both A-share markets.

The testing results indicate that the highest mean return is in March. We separately tested for the existence of the March effect by using both unadjusted data and adjusted data value-weighted data. By using the unadjusted data, the results in Table 5, Panel 1 on SHA share market, show that March has the highest mean returns of all months. The

testing results on SZA suggested that March is not the highest return and the highest return is February. However, a March effect is found by using adjusted value-weighted data though the evidence is weak (see Table 5, Panel 2). Both A-share markets show that March has the highest mean returns and that they are significantly higher than some months. For SHA the mean returns in March are 4.48 percent and are significantly higher than June, August, October and December at the 10 percent level of significance. The mean returns for March on SZB are 4.56 percent and significantly higher than April, June, August and December at the 10 percent level of significance.

5.2 Testing results by using value-weighted returns for B-shares

The monthly anomalies are examined in both B-share markets as this market is largely unexplored. In addition, the existence of the monthly anomalies is related to the behaviour of investors. There is an important feature to distinguish the investment behaviour between Chinese domestic investors and foreign investors, as A-shares are held only by domestic investors, and B-shares, until recently, were held by foreign investors. But this has been changed since February 2001, when the Chinese government opened the B-share markets to domestic investors. In this case, we separate the B-share markets into two periods to examine the monthly anomalies. The foreign investors dominate the B-share markets before February 2001 can be seen as the foreign investors dominate the market. There might be a January effect in B-share markets as these investors have a western culture. The period after February 2001, the Chinese domestic investors get into the B-share market, which might lead to changes the in

original investment behaviour. On this basis, we attempt to determine whether the monthly anomalies are driven by investors' cultural background.

By using unadjusted value-weighted data, Table 6, Panel 1 shows that there is no evidence of January effect in both SHB and SZB share markets either before or after February, 2001. Interestingly, in contrast to the international evidence where mean returns in January tend to be the highest, the B-share markets have posted significantly lower mean returns in January compared with the other months. Additionally, SHB shows that the return in January is lowest and significantly lower than February, May and December. By testing the adjusted data, the results are identical to those for the unadjusted data, which in January post a negative return (see Table 7, Panel 1).

However, a significant March effect has been found after February 2001 by using unadjusted data (see Table 6, Panel 2). For SHB the mean returns in March are significantly higher than June, July and October at the 10 percent level of significance. SZB has a stronger March effect than SHB, as its March returns are significantly higher than almost all of the other months except January, February and November. Although the March effect is found by using unadjusted data after February 2001, the adjusted data suggested a different result, that the mean returns in March are not the highest returns (see Table 7, Panel 2).

As we can see, the testing results are completely different between using adjusted and unadjusted value-weighted data for both B-share markets. We check the data and find that there is an unusual return appearance in March, 2001 which is because the Chinese government opened the B-share market to Chinese citizens in February 2001. A lot of domestic investors entered into the market which incurred a buy pressure in March,

which led to a high return for that period. The returns in March for SHB and SZB were 46.65 percent and 78.98 percent respectively. This return can be seen as an outlier that makes the unadjusted data results completely different to the adjusted data. For this reason, we cannot accept the existence of the March effect on both B-shares after regulation reform. We can see that the outlier has greatly influenced the regression result, so, eliminating the outlier is necessary.

5.3 Testing results by using equal-weighted portfolio returns for A-shares

As we rank the A-shares into five portfolio size classes, we find a robust size effect for both SHA and SZA share markets (see Table 8, Panel 1). Furthermore, the results support the size effect theory that small-capitalization firms have higher return than large-capitalization firms, and also higher return companies with a higher risk. The average return for portfolios of the smallest firms on the SHA share market is 0.72 percent with a 12.03 percent standard deviation versus negative 0.02 percent with an 11.11 percent standard deviation for largest firm. The return on portfolios of the smallest firms on the SZA share market is 0.66 percent with a 12.76 percent stand deviation versus a negative 0.22 percent average return on portfolios of the largest firms with 10.08 percent standard deviation. Interestingly, small portfolio size groups on the SZA share market are more risky than on the SHA share market, but the returns on SZA shares are not higher than SHA. In the aspect of large portfolio size groups, SHA have a higher risk than SZA.

According to our unadjusted equal-weighted portfolio results from Table 9, we found that there is no evidence of March effect on the SZA share market. However, SHA shows a weak evidence of March effect in the small size portfolio class as the returns in March are significantly higher than June, July, October and December. But the result also suggested that the mean returns in March are not the highest returns. Both A-share markets indicate the highest return is August. By checking the data we found there is an outlier which occurs in August, 1994. The returns are 91.0 percent and 66.86 percent for the smallest portfolio group in SHA and SZA respectively. For the largest portfolio group the August returns are 95.58 percent and 42.46 percent in SHA and SZA respectively. These outliers highly influence the regression test. Also as we mentioned before, in this period of time the government interfered in the market, making the return unusual. So, eliminating the outliers is necessary on the A-share market.

By using adjusted equal-weighted data, a robust March effect is found in both SHA and SZA share markets (see Table 10). For the SHA share market, the mean return in March on the smallest portfolio size group is 6.93 percent which is significantly higher than almost all the other months at the 10 percent level of significance, except February and May. As the portfolio size increases, the mean returns in March are decreasing and the evidence of March effect is getting weaker and in some months becomes insignificant in contrast to the smallest size group. The March return on SZA is 5.76 percent, which is significantly higher than almost all the other months, except February and May as well. The mean returns in March have a negative relationship with their size. Increasing the size make the evidence of March effect weaker.

5.4 Testing results by using equal-weighted portfolio returns for B-shares

The size effect also has been observed on the B-share market. But the results are not as distinct as for the A-share markets (see Table 8, Panel 2). Maybe, this is because all the firms which listed on SHB and SZB are large capitalization firms, the difference in market value of firms is tiny. For the SHB share market, the average return on size 1 and size 2 are identical, even the risk levels are almost same. The size effect on SZB share market is interesting, the results show that the highest return is not the smallest portfolio size group but the risk level for this group is the highest one compared with other size groups. The highest average return is on group size 4 and the risk level is quite low. From the results we also can see that the SZB share market has a higher risk level than SHB.

By testing the January effect by using adjusted data for B-shares, the results also show that the mean return in January is low for both B-shares and the results are quite consistent in adjusted value-weighted data (see Tables 11 and 12). Interestingly, the testing results, by using adjusted equal-weighted data after the regulation reform, for SZB show a positive and significant January effect only on the smallest group. The mean return on the smallest group is 10.82 percent and is significantly higher than all other months except February, May and November (see Table 12, Panel 3). The February and March effect has been tested and we did not find evidence of either February or March effect on B-share by using adjusted equal-weighted data (see Tables 13 and 14).

6. Discussion

As discussed, the previous literature suggested three major reasons that may cause the January effect in other countries. If the Chinese market had the same features the January effect might occur in China. The features will be discussed related to these explanations of the January effect.

First of all, one factor leading to the January effect is Tax-Loss-Selling. Investors wait until the tax-year-end to sell their loser stocks to realize capital losses that can offset capital gains, and buy back the stocks on January, which makes large gains for these stocks in January. However, there is no capital gains tax imposed in China. As a result, if the Tax-Loss-Selling Hypothesis dominates the seasonal anomaly in China's security market the January effect might not occur (The financial year-end in China is the last day of December).

The Window-Dressing Hypothesis is another explanation for the January effect. The money managers engage in Window-Dressing to promote positive perceptions of their performances in managing their clients' portfolios. In most mature stock markets, fund institutions have a large proportion in the market, which is likely incur the Window-Dressing. However, in China, the main investors are individual investors. A statistic from China Securities Regulatory Commission in 2006 reported that fund institutions and QFII had about 30 percent of the market value. Until the end of August, 2006 fund institutions have had 57 firms, which hold a net value of 530.7 billion RMB. The QFII have had 42 firms, which hold net value of 7.1 billion USD. We believe at the early stage of the Chinese stock market, the fund institutions were much less than 30 percent of market value. Although the fund managers face the same situation as other fund

managers in mature markets, fund managers' behaviour hardly dominates the market. If Window-Dressing is a factor of the January effect the January effect may not occur in China.

Finally, another explanation for the January effect is liquidity of funds. Unlike the U.S. where remuneration is set on a yearly basis and workers get paid every month, in China, the remuneration is usually set on a monthly basis and always includes a year-end bonus. The bonus is given out when the company makes profit for the year. It has become a custom, and normally these bonuses are quite high. China has been enjoying a high economic growth season as the average GDP was 9.4 percent per year. Consequently, companies made huge profits during these years and paid huge bonuses to their employees. These bonuses are likely to be invested in the security market. However, these bonuses are paid a week before Chinese New Year. If liquidity is a cause of stock return seasonality, this bonuses scheme may generate some seasonality in the Chinese market which may occur after Chinese New Year.

According to our results, we did not find any evidence of January effect; in fact the average return in January is negative and lower than other months. This result may support the Tax-Loss-Selling and Window-Dressing Hypotheses. However, March seasonality is found in the Chinese stock market and we believe the March effect can be explained by liquidity of funds.

Chinese New Year normally starts in February. As shown in Table 15, between 1994 and 2006, the earliest Chinese New Year was on 31st January 1995, and the latest was on 28 February 2006. But in most of the years, it is in mid February, and the stock market opens on the seventh day after the Chinese New Year Day. According to the

January effect, the first five days when the stock market re-opens after the New Year holiday shows the highest return. To be in line with this theory, the highest return of Chinese stock market should occur during mid-late February, i.e. the first five days when the stock market re-opens after the Chinese New Year holiday. However, there is another important reason that cannot be overlooked. Traditionally speaking, the Chinese New Year period does not end until after the fifteenth day of the first lunar month, i.e. the Lantern Festival. Over thousands of years, Chinese people have been celebrating the Chinese New Year season from about seven days before the New Year Day until after the fifteenth day into the new year. Although the current statutory holiday for the Chinese New Year is seven days, many people do not return from their holiday until the sixteenth day of the first lunar month. Or, even if most people have returned to work, they are actually still in the festival mood. The normal operation of all business would not get back to the right track until about a week later, that is, after the Lantern Festival. Also, most individual investors do not come back from their holiday until about this time. The solar calendar counterpart of its lunar fifteenth day of the first month of each year from 1994 to 2006 is shown in Table 15 below.

At the moment, the majority of Chinese companies are still state-owned enterprises. Most fund companies belong to banks. The top four banks in China are all state-owned. The majority of the next tier of banks are either state-owned or have the government being a major share holder. Because of the background of a long history of economic planning and the critical role that government is playing as share holder, Chinese companies, including the fund companies are still in the habit of making plans for the coming year at the beginning of the new year. The planning stage involves a lot of research, meetings and discussions. When the new year's plan is set, it will take some time for the plan to reach the floor through different levels of management and

operations. By the time this is all done and in place and the new plan is being implemented, it would normally be the beginning of March. At the same time, the individual investors are also back to their normal work. So the market starts booming, funds become sufficient, and the stock market becomes more and more active. And this causes the unique “March effect” of the Chinese stock market.

In fact, good understanding of the Chinese New Year culture and the planning economy can also help to explain why returns in March are not significantly higher than those in February. As mentioned above, because Chinese New Year is based on the lunar calendar, it does not always fall into the same dates of the solar calendar. Sometimes, the Chinese New Year is in early February. So even after the making and initial implementation of the new plan, it is still within February. On the other hand, although the majority of Chinese companies are mainly state-owned, with the development of economic reform and the country’s opening up to the outside world, there are more and more privately owned companies and foreign investment companies. These non-state owned companies are widely regarded as more effective. With the impact of frequent “early” Chinese New Years and the higher efficiency of the non-state owned companies, the average return in February is also very high, although still slightly lower than March. With the further internationalization of the Chinese economy, the Chinese market could become more efficient in the near future. In that case, the current March effect in the Chinese stock market may eventually slip into February.

The data also shows that December is normally the month with the lowest return. This is because of the significant lack of funds during this period of time. It is an open secret that there are a lot of misappropriated funds existing in the Chinese stock market – because the legal system in China is still imperfect, many individuals or groups of

individuals take advantage of this imperfection and peculate funds from other sources into the stock market to pursue their own financial benefits. Wherever such funds come from, by the end of the financial year they need to be returned to keep the account book balanced. So cash is very tight at the end of the calendar year. This directly brings pressure on the stock holders to sell during December.

In January, although it is already the beginning of a new financial year, without the coming year's development/investment plan in place (as discussed above, this process normally will not finish until weeks after the Chinese New Year season), these funds are not yet available for misappropriation. Also keep in mind that all companies need to pay a lot of cash bonuses and/or other benefits to their employees before the Chinese New Year. So, many of the legal funds in the stock market also need to be held onto tightly until after the New Year season. Therefore, the return in January is also quite low.

For the B-share market, at the beginning we tried to compare the investment behaviour before the regulation reform and after, as the foreign investors dominated the market before 2001; after that Chinese domestic investors were able to access the B-share market and may have influenced the original investors' behaviour. However, we found no seasonalities in B-share markets either before or after the regulation reform. But this does not mean that the B-share markets are efficient. Moreover, by contrast in A-share markets the risk levels are high and the return is low (see Table 8). This may imply that the B-share markets are speculative markets as investors are more interested in short-term investment. In this case, to examine the seasonal anomaly in such markets is difficult.

7. Conclusion

Seasonal anomalies are well documented in developed stock markets. One famous example of seasonal anomalies is the January effect or turn-of-the-year effect. This research focuses on the turn-of-the-year effect on the Chinese stock market. This research covers the four Chinese stock markets including SHA, SHB, SZA and SZB share markets and the seasonal anomaly has been tested by using value-weighted indices and equal-weighted portfolios.

In this study, we found no evidence of the January effect in the Chinese stock market, in contrast to other international markets. However, a March effect is found by using either adjusted value-weighted or adjusted equal-weighted data on both SHA and SZA share markets. In addition, the adjusted equal-weighted data shows a robust March effect and this finding strongly supports the theory that the turn-of-the-year effect is a small capitalization phenomenon. Although February can be seen as the turn-of-the-year in China, as Chinese Lunar New Years occur in late January and February, we believe the March effect is the turn-of-the-year in China as the national economic background and cultural background delay the turn-of-the-year to March.

The Chinese stock markets provide unique features to distinguish the investment behaviour of Chinse domestic investors from overseas investors, as the Chinese government opened the B-share markets to domestic investors in February 2001. In this case, we believe the B-share markets were dominated by overseas investors before February 2001, and after February 2001 Chinese domestic investors entered into the B-share markets which may influence the investment behaviour of overseas investors. Unfortunately, we did not find any monthly anomalies either before or after February

2001 in both B-share markets. But this does not mean that B-share markets are efficient, perhaps, the B-share markets are speculative markets. The investors focus on short-term investment, so measuring the financial anomalies is difficult.

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9. Appendix

Table 1: The number of companies that we used as our sample to created equal-weighted indexes in each year for each market.

	SHA No. of S	SHB No. of S	SZA No. of S	SZB No. of S
1993	87	19	57	14
1994	149	31	94	18
1995	163	33	99	26
1996	247	39	175	35
1997	322	47	272	43
1998	367	49	318	46
1999	406	51	362	46
2000	484	52	407	51
2001	551	52	408	51
2002	618	52	409	51
2003	681	52	409	51
2004	739	52	445	51
2005	742	52	454	51
2006	755	52	500	51

Note: Firstly, we rank the stocks by market value from smallest to largest for each year. Secondly, we separate the stocks into five size classes according its market value and let each group had 20% of the total firms. Thirdly, we created a monthly equal-weighted portfolio return for each year.

Table 2: The outliers

SHA 1		SHA 2		SHA 3		SHA 4		SHA 5	
Date	Returns	Date	Returns	Date	Returns	Date	Returns	Date	Returns
1994-7-29	-38.79%	1994-7-29	-38.94%	1994-7-29	-38.66%	1994-7-29	-35.89%	1994-7-29	-33.98%
1994-8-31	91.01%	1994-8-31	84.78%	1994-8-31	101.61%	1994-8-31	92.06%	1994-8-31	95.58%
1996-4-30	25.07%	1996-4-30	22.61%	1996-4-30	22.77%	1996-4-30	23.74%	1999-6-30	28.43%
1999-6-30	25.59%	1999-6-30	25.16%	1999-6-30	29.86%	1999-6-30	27.61%		
SZA 1		**SZA 2**		**SZA 3**		**SZA 4**		**SZA 5**	
Date	Returns	Date	Returns	Date	Returns	Date	Returns	Date	Returns
1994-6-30	-25.37%	1994-6-30	-24.31%	1994-7-29	-26.69%	1994-7-29	-22.46%	1994-3-31	-22.53%
1994-7-29	-30.24%	1994-7-29	-30.22%	1994-8-31	60.10%	1994-8-31	47.46%	1994-8-31	42.13%
1994-8-31	66.86%	1994-8-31	67.87%	1994-10-31	-25.88%	1994-10-31	-27.30%	1994-10-31	-27.38%
1994-9-30	34.71%	1996-4-30	33.86%	1996-4-30	35.28%	1996-4-30	40.23%	1996-4-30	34.49%
1996-4-30	34.34%	1996-7-31	35.30%	1996-7-31	33.12%	1996-7-31	30.77%	1996-7-31	29.69%
1996-7-31	35.29%	1996-10-31	40.33%	1996-10-31	34.49%	1996-10-31	37.45%	1996-10-31	29.06%
1996-10-31	44.58%	1996-12-31	-35.59%	1996-12-31	-31.87%	1996-12-31	-31.02%	1996-12-31	-28.59%
1996-12-31	-42.72%	1999-6-30	26.40%	1999-6-30	29.26%	1999-6-30	26.75%	1999-6-30	31.74%
1999-6-30	26.77%								
SHB 1		**SHB 2**		**SHB 3**		**SHB 4**		**SHB 5**	
Date	Returns	Date	Returns	Date	Returns	Date	Returns	Date	Returns
1996-12-31	41.22%	1996-12-31	37.51%	1999-5-31	39.22%	1996-12-31	29.83%	1999-5-31	34.28%
1999-5-31	38.34%	1999-5-31	39.10%	1999-6-30	49.87%	1999-5-31	44.45%	1999-6-30	37.72%
1999-6-30	28.66%	1999-6-30	36.44%	2000-5-31	27.16%	1999-6-30	34.52%	2001-3-30	50.05%
2000-5-31	30.96%	2001-3-30	63.09%	2001-3-30	51.93%	2000-5-31	27.69%	2001-5-31	26.37%
2000-12-29	31.66%	2001-5-31	30.42%	2001-5-31	29.87%	2001-3-30	58.87%	2001-7-31	-27.99%
2001-3-30	60.88%	2001-7-31	-30.48%	2001-7-31	-28.53%	2001-7-31	-26.87%	2006-1-31	28.80%
2001-5-31	29.42%	2006-1-31	38.99%	2006-1-31	34.64%	2006-1-31	37.06%		
2001-7-31	-29.26%	2006-9-29	43.52%	2006-9-29	31.86%				
2006-1-31	48.53%								
2006-9-29	42.97%								
SZB 1		**SZB 2**		**SZB 3**		**SZB 4**		**SZB 5**	
Date	Returns	Date	Returns	Date	Returns	Date	Returns	Date	Returns
1996-11-29	61.10%	1996-11-29	60.83%	1996-11-29	49.38%	1996-11-29	41.62%	1996-11-29	41.49%
1999-6-30	63.63%	1999-6-30	59.32%	1999-6-30	56.50%	1999-6-30	45.92%	1999-6-30	44.50%
2001-3-30	106.54%	2001-3-30	89.31%	2001-3-30	85.60%	2001-3-30	87.26%	2001-3-30	79.42%
2002-1-31	-35.20%	2002-1-31	-35.49%	2002-1-31	-26.77%	2002-1-31	-24.35%		
2006-9-29	33.01%	2006-9-29	36.81%	2006-9-29	26.48%				

Note: 1, Size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
2, we assume all the monthly returns are normal distributions, therefore, 95% of returns fall into two standard deviations away from the mean. We believe the 95% range of returns is normal returns in the Chinese markets. The returns out of 95% range can be seen as outliers as these abnormal returns unduly influence and/or bias the regression test results. We tested the financial anomaly by using adjusted data which the outliers was eliminated.

Table 3: Testing results by using value-weighted data for *January* test on A-shares

Panel 1: Estimated coefficients by unadjusted data – JANUARY, 1994-2006

	SHA		SZA	
Month	**Coefficients**	**P-value**	**Coefficients**	**P-value**
Constant	-0.04%	0.988	-0.17%	0.951
Feb.	2.45%	0.521	3.21%	0.411
Mar.	4.52%	0.237	2.86%	0.463
Apr.	0.24%	0.949	0.77%	0.843
May.	1.95%	0.610	2.73%	0.483
Jun.	-0.76%	0.842	-1.43%	0.713
Jul.	0.41%	0.914	1.96%	0.615
Aug.	3.27%	0.392	1.39%	0.722
Sep.	-0.42%	0.913	-0.15%	0.970
Oct.	-1.52%	0.691	0.22%	0.954
Nov.	1.85%	0.629	1.14%	0.770
Dec.	-2.29%	0.549	-4.03%	0.302

Note: 1, constant represents January
2, the results show that there is no January effect in SHA and SZA by using unadjusted value-weighted data.

Panel 2: Estimated coefficients by adjusted data – JANUARY, 1994-2006

	SHA		SZA	
Month	**Coefficients**	**P-value**	**Coefficients**	**P-value**
Constant	-0.04%	0.986	-0.17%	0.935
Feb.	2.45%	0.428	3.21%	0.276
Mar.	4.52%	0.144	4.73%	0.117
Apr.	0.24%	0.937	-2.26%	0.451
May.	0.40%	0.898	2.73%	0.353
Jun.	-0.76%	0.805	-3.26%	0.279
Jul.	0.41%	0.894	-0.95%	0.751
Aug.	-1.43%	0.649	-0.83%	0.782
Sep.	-0.42%	0.892	-0.15%	0.961
Oct.	-1.52%	0.624	-0.29%	0.925
Nov.	1.85%	0.550	1.14%	0.698
Dec.	-2.89%	0.372	-2.23%	0.457

Note: 1, constant represents January
2, the results show that there is no January effect in SHA and SZA by using unadjusted value-weighted data.

Table 4: Testing results by using value-weighted data for *February* test on A-shares

Panel 1: Estimated coefficients by unadjusted data – FEBRUARY, 1994-2006

	SHA		SZA	
Month	**Coefficients**	**P-value**	**Coefficients**	**P-value**
Constant	2.41%	0.372	3.04%	0.271
Jan.	-2.45%	0.521	-3.21%	0.411
Mar.	2.08%	0.587	-0.35%	0.929
Apr.	-2.21%	0.563	-2.44%	0.532
May.	-0.50%	0.895	-0.47%	0.903
Jun.	-3.21%	0.401	-4.64%	0.235
Jul.	-2.04%	0.593	-1.25%	0.749
Aug.	0.82%	0.830	-1.82%	0.640
Sep.	-2.87%	0.453	-3.35%	0.390
Oct.	-3.96%	0.300	-2.98%	0.444
Nov.	-0.60%	0.874	-2.07%	0.596
Dec.	-4.74%	0.215	-7.24%	**0.065***

Note: 1, * significant level at 10%
2, constant represent February
3, the results show that there is no February effect in SHA and SZA by using unadjusted value-Weighted data.

Panel 2: Estimated coefficients by adjusted data – FEBRUARY, 1994-2006

	SHA		SZA	
Month	**Coefficients**	**P-value**	**Coefficients**	**P-value**
Constant	2.41%	0.271	3.04%	0.145
Jan.	-2.45%	0.428	-3.21%	0.276
Mar.	2.08%	0.502	1.52%	0.612
Apr.	-2.21%	0.475	-5.47%	**0.070***
May.	-2.04%	0.517	-0.47%	0.872
Jun.	-3.21%	0.299	-6.47%	**0.033***
Jul.	-2.04%	0.509	-4.16%	0.167
Aug.	-3.88%	0.219	-4.04%	0.180
Sep.	-2.87%	0.354	-3.35%	0.255
Oct.	-3.96%	0.201	-3.50%	0.256
Nov.	-0.60%	0.845	-2.07%	0.482
Dec.	-5.33%	**0.100***	-5.44%	**0.071***

Note: 1, * significant level at 10%
2, constant represent February
3, the results show that there is no February effect in SHA and SZA by using adjusted value-weighted data.

Table 5: Testing results by using value-weighted data for *March* test on A-shares

Panel 1: Estimated coefficients by unadjusted data – MARCH, 1994-2006

	SHA		SZA	
Month	**Coefficients**	**P-value**	**Coefficients**	**P-value**
Constant	4.48%	0.098*	2.69%	0.330
Jan.	-4.52%	0.237	-2.86%	0.463
Feb.	-2.08%	0.587	0.35%	0.929
Apr.	-4.28%	0.263	-2.09%	0.592
May.	-2.58%	0.499	-0.13%	0.974
Jun.	-5.29%	0.167	-4.29%	0.272
Jul.	-4.11%	0.282	-0.90%	0.818
Aug.	-1.26%	0.742	-1.47%	0.705
Sep.	-4.94%	0.196	-3.01%	0.441
Oct.	-6.04%	0.115	-2.64%	0.499
Nov.	-2.68%	0.483	-1.72%	0.659
Dec.	-6.81%	**0.076***	-6.89%	**0.079***

Note: 1, * significant level at 10%
2, constant represent March
3, the results show that there is no March effect in SHA and SZA by using unadjusted value-weighted data.

Panel 2: Estimated coefficients by adjusted data – MARCH, 1994-2006

	SHA		SZA	
Month	**Coefficients**	**P-value**	**Coefficients**	**P-value**
Constant	4.48%	**0.041***	4.56%	0.037
Jan.	-4.52%	0.144	-4.73%	0.117
Feb.	-2.08%	0.502	-1.52%	0.612
Apr.	-4.28%	0.167	-6.99%	**0.024***
May.	-4.12%	0.192	-2.00%	0.506
Jun.	-5.29%	**0.089***	-7.99%	**0.010***
Jul.	-4.11%	0.184	-5.68%	0.065*
Aug.	-5.96%	**0.060***	-5.56%	**0.071***
Sep.	-4.94%	0.111	-4.88%	0.106
Oct.	-6.04%	**0.052***	-5.02%	0.110
Nov.	-2.68%	0.386	-3.59%	0.233
Dec.	-7.41%	**0.023***	-6.96%	**0.024***

Note: 1, * significant level at 10%
2, constant represent March
3, the results show that there is no March effect in SHA and SZA by using adjusted value-weighted data.

Table 6: Testing results by using unadjusted value-weighted data for January and March test on B-shares

Panel 1: Estimated coefficients by unadjusted data – JANUARY, in different period

Unadjusted data for B-shares								
	SHB				SZB			
	Before Feb,2001		After Feb,2001		Before Feb,2001		After Feb,2001	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-7.58%	**0.086***	6.53%	0.192	-3.53%	0.446	5.21%	0.377
Feb.	12.30%	**0.049***	-3.91%	0.578	4.16%	0.525	-2.27%	0.785
Mar.	6.76%	0.292	1.93%	0.774	4.54%	0.502	10.22%	0.202
Apr.	8.64%	0.18	-8.21%	0.225	3.54%	0.601	-5.10%	0.522
May.	18.42%	**0.005***	-4.75%	0.481	12.22%	**0.074***	-4.63%	0.561
Jun.	6.29%	0.327	-11.27%	**0.097***	6.68%	0.325	-7.64%	0.338
Jul.	4.43%	0.489	-12.21%	**0.073***	-0.32%	0.963	-9.13%	0.253
Aug.	10.21%	0.114	-7.27%	0.281	2.96%	0.661	-6.79%	0.394
Sep.	6.75%	0.293	-4.65%	0.49	3.54%	0.601	-4.79%	0.547
Oct.	3.71%	0.562	-9.95%	0.142	-0.39%	0.954	-7.05%	0.377
Nov.	2.94%	0.646	-4.85%	0.471	6.06%	0.372	-1.39%	0.861
Dec.	10.68%	**0.098***	-7.37%	0.275	0.86%	0.899	-5.28%	0.508

Note: 1 * Significant level at 10%
2, constant represent January
3, the results show that there is no January effect in SHB and SZB by using unadjusted value-weighted data.

Panel 2: Estimated coefficients by unadjusted data – MARCH, 2001-2006

Unadjusted data for March test after February, 2001				
	SHB		SZB	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	8.46%	0.066	15.43%	0.005
Jan.	-1.93%	0.774	-10.22%	0.202
Feb.	-5.84%	0.386	-12.49%	0.12
Apr.	-10.14%	0.117	-15.32%	**0.047***
May.	-6.68%	0.299	-14.86%	**0.054***
Jun.	-13.20%	**0.043***	-17.87%	**0.021***
Jul.	-14.14%	**0.031***	-19.36%	**0.013***
Aug.	-9.20%	0.154	-17.02%	**0.028***
Sep.	-6.58%	0.306	-15.01%	**0.051***
Oct.	-11.88%	**0.068***	-17.28%	**0.026***
Nov.	-6.78%	0.292	-11.61%	0.129
Dec.	-9.30%	0.15	-15.50%	**0.045***

Note: 1, * Significant level at 10%
2, constant represent March
3, the results by using unadjusted equal-weighted data after Feb. 2001 show that the highest return is March for SHB but it is insignificant. SZB shows a March effect as March has the highest return and significant higher than most months.

Table 7: Testing results by using adjusted value-weighted data for January and March test on B-shares

Panel 1: Estimated coefficients by adjusted data – JANUARY, in different period

Adjusted data								
	SHB				SZB			
	Before Feb,2001		After Feb, 2001		Before Feb,2001		After Feb, 2001	
Month	**Returns**	**P-value**	**Returns**	**P-value**	**Returns**	**P-value**	**Returns**	**P-value**
Constant	-7.58%	**0.042***	-0.16%	0.967	-3.53%	0.293	5.21%	0.222
Feb.	12.30%	**0.020***	2.79%	0.604	4.16%	0.380	-2.27%	0.705
Mar.	6.76%	0.211	0.98%	0.854	4.54%	0.355	-2.48%	0.679
Apr.	8.64%	0.112	-1.51%	0.769	3.54%	0.470	-5.10%	0.376
May.	8.44%	0.157	-2.60%	0.628	8.03%	0.119	-4.63%	0.421
Jun.	1.90%	0.735	-4.58%	0.377	0.18%	0.971	-7.64%	0.186
Jul.	9.32%	**0.100***	-1.94%	0.718	3.42%	0.503	-9.13%	0.115
Aug.	10.21%	**0.061***	-0.58%	0.911	2.96%	0.545	-6.79%	0.239
Sep.	6.75%	0.212	2.04%	0.693	3.54%	0.470	-4.79%	0.405
Oct.	3.71%	0.491	-3.26%	0.529	-0.39%	0.936	-7.05%	0.222
Nov.	2.94%	0.585	1.84%	0.721	-2.71%	0.596	-1.39%	0.809
Dec.	10.68%	0.050	-0.68%	0.896	0.86%	0.861	-5.28%	0.359

Note: 1, * Significant level at 10%
2, constant represent January
3, the results show that there is no January effect in SHB and SZB by using adjusted value-weighted data. However, January shows a lowest return on SHB share market before Feb, 2001.

Panel 2: Estimated coefficients by adjusted data – MARCH, 2001-2006

Adjusted data				
	SHB		SZB	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	0.82%	0.819	2.72%	0.518
Feb.	-0.98%	0.854	2.48%	0.676
Mar.	1.80%	0.722	0.22%	0.970
Apr.	-2.50%	0.606	-2.61%	0.646
May.	-3.59%	0.480	-2.15%	0.706
Jun.	-5.56%	0.254	-5.16%	0.36
Jul.	-2.93%	0.564	-6.65%	0.246
Aug.	-1.57%	0.747	-4.31%	0.450
Sep.	1.06%	0.827	-2.31%	0.686
Oct.	-4.24%	0.383	-6.02%	0.314
Nov.	0.86%	0.859	-0.27%	0.963
Dec.	-1.66%	0.732	-5.46%	0.361

Note: 1, * Significant level at 10%
2, constant represent March
3, the results show that there is no March effect in SHB and SZB by using adjusted equal-weighted data after Feb, 2001.

Table 8: The size effect

Panel 1: the size effect for both A-share markets

	SHA		SZA	
Size	**Average return**	**SD**	**Average return**	**SD**
1	0.72%	12.03%	0.66%	12.76%
2	0.32%	12.01%	0.30%	12.01%
3	0.27%	11.48%	0.02%	11.19%
4	0.06%	11.22%	-0.12%	10.79%
5	-0.02%	11.11%	-0.22%	10.08%

Note: 1, Size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
2, SD represents the risk level

Panel 2: the size effect for both B-share markets

	SHB		SZB	
Size	**Average return**	**SD**	**Average return**	**SD**
1	0.46%	13.41%	0.25%	15.71%
2	0.46%	13.39%	0.01%	15.87%
3	0.13%	12.92%	-0.07%	13.98%
4	-0.11%	13.16%	0.40%	12.78%
5	-0.52%	11.84%	-0.08%	12.54%

Note: 1, Size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
2, SD represents the risk level

Table 9: Testing results by using unadjusted equal-weighted data for *March* test on A-shares

Panel 1: Estimated coefficients by unadjusted data – MARCH, 1994-2006 on SHA

SHA										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	6.93%	**0.035***	4.39%	0.151	4.08%	0.219	2.80%	0.382	2.76%	0.379
Jan.	-7.26%	0.117	-4.68%	0.279	-4.37%	0.352	-3.02%	0.504	-2.97%	0.504
Feb.	-3.67%	0.427	-1.16%	0.788	-1.76%	0.707	-0.84%	0.853	-1.35%	0.761
Apr.	-7.35%	0.113	-4.55%	0.291	-3.29%	0.482	-2.49%	0.581	-2.66%	0.549
May.	-4.27%	0.356	-2.36%	0.584	-2.71%	0.563	-1.74%	0.699	-2.32%	0.601
Jun.	-7.76%	**0.095***	-5.12%	0.236	-4.60%	0.327	-2.59%	0.566	-1.80%	0.685
Jul.	-11.86%	**0.011***	-9.64%	**0.027***	-9.32%	**0.048***	-7.51%	**0.098***	-7.92%	**0.076***
Aug.	1.39%	0.764	2.73%	0.527	3.99%	0.395	3.90%	0.388	2.80%	0.528
Sep.	-6.59%	0.155	-5.06%	0.241	-4.66%	0.321	-3.47%	0.443	-3.53%	0.426
Oct.	-9.11%	**0.05***	-6.69%	0.122	-6.95%	0.14	-5.52%	0.223	-5.30%	0.233
Nov.	-5.75%	0.214	-3.22%	0.456	-3.08%	0.511	-2.13%	0.638	-1.79%	0.686
Dec.	-12.35%	**0.008***	-9.08%	**0.036***	-8.93%	**0.058***	-7.43%	0.102	-6.56%	0.14

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March
4, the results show that there is no March effect for SHA by using unadjusted equal-weighted data. The results indicate the highest return is August.

Panel 2: Estimated coefficients by unadjusted data – MARCH, 1994-2006 on SZA

SZA										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	4.14%	0.247	2.94%	0.383	2.50%	0.426	1.46%	0.630	1.11%	0.696
Jan.	-4.98%	0.325	-4.41%	0.355	-3.31%	0.455	-2.15%	0.617	-1.58%	0.695
Feb.	0.13%	0.979	0.34%	0.943	0.01%	0.999	0.68%	0.874	0.62%	0.877
Apr.	-4.98%	0.325	-2.42%	0.612	-2.82%	0.525	-0.57%	0.894	-0.17%	0.967
May.	-1.63%	0.746	-0.72%	0.879	-1.65%	0.709	0.63%	0.884	0.14%	0.972
Jun.	-3.79%	0.453	-3.22%	0.499	-1.56%	0.725	-1.13%	0.793	-0.57%	0.888
Jul.	-7.07%	0.162	-5.74%	0.229	-5.98%	0.179	-4.69%	0.276	-4.30%	0.288
Aug.	0.55%	0.914	1.27%	0.790	1.67%	0.706	1.04%	0.808	0.67%	0.868
Sep.	-1.65%	0.744	-2.38%	0.618	-2.95%	0.507	-2.51%	0.559	-2.63%	0.514
Oct.	-4.05%	0.423	-2.65%	0.578	-3.27%	0.461	-1.75%	0.683	-2.12%	0.599
Nov.	-3.81%	0.450	-2.39%	0.616	-1.45%	0.744	-1.16%	0.786	-0.40%	0.921
Dec.	-10.50%	**0.039**	-9.45%	**0.049**	-8.49%	**0.057**	-7.38%	0.087	-5.65%	0.163

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March
4, the results show that there is no March effect for SZA by using unadjusted equal-weighted data.

.**Table 10: Testing results by using adjusted Equal-weighted data for March effect on A-shares**

Panel 1: Estimated coefficients by adjusted data – MARCH, 1994-2006 on SHA

SHA										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	6.93%	**0.003***	4.39%	**0.041***	4.08%	**0.064***	2.80%	0.202	2.76%	0.18
Jan.	-7.26%	**0.028***	-4.68%	0.123	-4.37%	0.16	-3.02%	0.329	-2.97%	0.309
Feb.	-3.67%	0.265	-1.16%	0.701	-1.76%	0.57	-0.84%	0.787	-1.35%	0.643
Apr.	-9.48%	**0.005***	-6.45%	**0.038***	-3.29%	0.289	-4.45%	0.16	-2.66%	0.361
May.	-4.27%	0.195	-2.36%	0.434	-2.71%	0.383	-1.74%	0.573	-2.32%	0.425
Jun.	-9.96%	**0.003***	-7.28%	**0.019***	-7.13%	**0.026***	-4.87%	0.124	-4.09%	0.17
Jul.	-9.04%	**0.008***	-6.83%	**0.028***	-6.54%	**0.04***	-4.91%	0.121	-5.51%	**0.065***
Aug.	-5.50%	**0.10***	-3.75%	0.225	-3.81%	0.23	-3.21%	0.309	-4.70%	0.115
Sep.	-6.59%	**0.047***	-5.06%	**0.095***	-4.66%	0.134	-3.47%	0.263	-3.53%	0.225
Oct.	-9.11%	**0.006***	-6.69%	**0.028***	-6.95%	**0.026***	-5.52%	**0.076***	-5.30%	**0.07***
Nov.	-5.75%	**0.082***	-3.22%	0.287	-3.08%	0.321	-2.13%	0.491	-1.79%	0.537
Dec.	-12.35%	**0.000***	-9.08%	**0.003***	-9.65%	**0.003***	-7.43%	**0.017***	-7.64%	**0.011***

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March
4, the results show that a significant March effect has been observed by using adjusted value-weighted data on SHA. The results also suggest that the evidence on smallest capitalization stocks is stronger than large capitalization stocks.

Panel 2: Estimated coefficients by adjusted data – MARCH, 1994-2006 on SZA

SZA										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	5.76%	**0.019***	4.75%	0.045	4.26%	0.053	3.07%	0.164	3.08%	0.142
Jan.	-6.60%	**0.053***	-6.21%	**0.058***	-5.07%	**0.096***	-3.75%	0.219	-3.55%	0.223
Feb.	-1.49%	0.660	-1.46%	0.653	-1.75%	0.564	-0.92%	0.762	-1.35%	0.642
Apr.	-9.53%	**0.006***	-7.00%	**0.036***	-7.54%	**0.016***	-5.46%	**0.081***	-4.93%	**0.097***
May.	-3.26%	0.337	-2.53%	0.437	-3.41%	0.262	-0.98%	0.748	-1.83%	0.528
Jun.	-5.47%	0.122	-5.27%	0.122	-5.67%	**0.068***	-4.93%	0.114	-5.14%	**0.084***
Jul.	-9.69%	**0.007***	-8.52%	**0.013***	-8.96%	**0.005***	-7.63%	**0.017***	-9.00%	**0.003***
Aug.	-6.26%	**0.071***	-5.84%	**0.080***	-4.75%	0.126	-4.31%	0.167	-4.66%	0.117
Sep.	-5.95%	**0.086***	-4.18%	0.200	-4.70%	0.122	-4.12%	0.178	-4.60%	0.115
Oct.	-9.38%	**0.007***	-7.79%	**0.020***	-5.95%	**0.062***	-4.33%	0.174	-4.42%	0.145
Nov.	-5.43%	0.110	-4.19%	0.199	-3.21%	0.291	-2.77%	0.364	-2.37%	0.415
Dec.	-9.09%	**0.009***	-8.84%	**0.009***	-8.10%	**0.010***	-6.89%	**0.028***	-5.62%	**0.059***

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March
4, the results show that a significant March effect has been observed by using adjusted value-weighted data on SZA. The results also suggest that the evidence on smallest capitalization stocks is stronger than large capitalization stocks.

Table 11: Testing results by using unadjusted Equal-weighted data for January test on B-shares

Panel 1: Estimated coefficients by unadjusted data – JANUARY, 1994-2001 on SHB

Unadjusted data for SHB (Before February 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-7.52%	**0.088***	-6.45%	0.153	-8.42%	**0.076***	-7.26%	0.142	-7.71%	**0.086***
Feb.	8.80%	0.156	10.63%	**0.096***	13.60%	**0.044***	10.83%	0.122	11.34%	**0.074***
Mar.	10.01%	0.12	9.33%	0.158	8.38%	0.225	6.83%	0.344	3.70%	0.569
Apr.	4.97%	0.437	3.06%	0.641	7.66%	0.267	6.60%	0.36	8.82%	0.178
May.	14.46%	**0.026***	16.37%	**0.014***	17.16%	**0.015***	18.75%	**0.011***	16.54%	**0.013***
Jun.	8.47%	0.187	5.88%	0.371	14.27%	**0.041***	6.97%	0.334	9.41%	0.151
Jul.	5.06%	0.429	1.36%	0.836	1.95%	0.777	-0.29%	0.968	1.01%	0.877
Aug.	16.37%	**0.012***	16.07%	**0.016***	8.05%	0.244	9.80%	0.176	9.20%	0.16
Sep.	7.75%	0.227	5.34%	0.417	7.55%	0.274	7.64%	0.29	5.24%	0.421
Oct.	3.26%	0.61	3.65%	0.578	4.56%	0.508	1.26%	0.861	5.01%	0.442
Nov.	5.57%	0.384	2.71%	0.679	2.90%	0.673	2.63%	0.715	0.07%	0.992
Dec.	16.84%	**0.01***	12.14%	**0.067***	12.54%	**0.071***	11.57%	0.111	9.09%	0.165

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent January
4, the results show that the mean return in January is negative and lowest. There is no evidence of January effect on SHB before Feb, 2001

Panel 2: Estimated coefficients by unadjusted data – JANUARY, 2001-2006 on SHB

Unadjusted data for SHB (After February 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	7.53%	0.25	5.21%	0.417	6.31%	0.268	8.28%	0.133	6.27%	0.203
Feb.	-2.93%	0.75	-4.14%	0.648	-3.39%	0.673	-6.10%	0.43	-4.70%	0.497
Mar.	1.04%	0.906	3.63%	0.676	0.00%	1.000	1.31%	0.859	2.10%	0.751
Apr.	-12.53%	0.159	-6.40%	0.461	-6.13%	0.426	-10.51%	0.159	-7.52%	0.258
May.	-3.45%	0.696	-1.16%	0.894	-2.31%	0.763	-6.20%	0.403	-3.82%	0.564
Jun.	-10.35%	0.243	-9.41%	0.28	-10.49%	0.175	-13.33%	**0.075***	-13.03%	**0.053***
Jul.	-15.80%	**0.077***	-13.98%	0.111	-14.05%	**0.071***	-15.20%	**0.043***	-11.93%	**0.075***
Aug.	-9.30%	0.293	-6.97%	0.423	-6.08%	0.429	-9.06%	0.223	-7.29%	0.273
Sep.	-0.48%	0.956	0.80%	0.926	-1.67%	0.827	-5.60%	0.449	-5.06%	0.445
Oct.	-14.32%	0.108	-9.83%	0.259	-11.67%	0.132	-12.65%	0.091	-8.79%	0.187
Nov.	-7.52%	0.395	-3.94%	0.65	-5.15%	0.503	-6.16%	0.406	-5.00%	0.451
Dec.	-12.96%	0.145	-8.46%	0.331	-6.50%	0.399	-11.04%	0.139	-6.52%	0.327

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent January
4, the results show that the mean returns in January is second highest return. There is no evidence of January effect on SHB after Feb, 2001

Panel 3: Estimated coefficients by unadjusted data – JANUARY, 1994-2001 on SZB

Unadjusted data for SZB (Before February 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-2.49%	0.639	-3.57%	0.53	-1.86%	0.711	-2.95%	0.501	-4.50%	0.311
Feb.	2.16%	0.773	0.60%	0.94	-0.31%	0.965	3.83%	0.537	3.40%	0.588
Mar.	6.96%	0.372	9.24%	0.268	5.48%	0.455	5.15%	0.423	4.88%	0.452
Apr.	-1.19%	0.878	6.51%	0.435	0.11%	0.988	1.64%	0.798	4.81%	0.459
May.	5.88%	0.45	9.58%	0.252	11.23%	0.128	10.14%	0.117	8.93%	0.171
Jun.	11.47%	0.142	10.69%	0.201	6.09%	0.406	9.93%	0.125	10.24%	0.117
Jul.	-2.20%	0.777	-2.87%	0.73	-7.15%	0.33	-4.85%	0.451	-4.30%	0.508
Aug.	0.34%	0.965	-3.05%	0.714	-0.21%	0.978	0.16%	0.981	2.79%	0.667
Sep.	2.30%	0.767	5.77%	0.489	2.79%	0.703	1.26%	0.844	4.51%	0.487
Oct.	2.39%	0.758	-0.41%	0.96	-1.68%	0.819	-0.32%	0.96	0.45%	0.944
Nov.	6.03%	0.438	7.25%	0.385	3.35%	0.648	2.72%	0.672	3.48%	0.592
Dec.	-0.41%	0.958	0.80%	0.923	-2.16%	0.768	0.99%	0.878	2.54%	0.695

Note: 1, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
2, constant represent January
3, the results show that there is no January effect in SZB (before Feb, 2001) by using unadjusted equal-weighted data.

Panel 4: Estimated coefficients by unadjusted data – JANUARY, 2001-2006 on SZB

Unadjusted data for SZB (After February 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	1.62%	0.836	0.62%	0.933	3.42%	0.599	3.67%	0.55	5.55%	0.34
Feb.	4.01%	0.717	3.76%	0.719	-2.28%	0.805	-0.27%	0.975	-1.59%	0.85
Mar.	13.44%	0.207	11.51%	0.254	9.01%	0.309	11.45%	0.171	9.00%	0.25
Apr.	-7.23%	0.495	-3.26%	0.745	-4.26%	0.629	-2.38%	0.775	-5.83%	0.46
May.	3.43%	0.746	2.98%	0.767	-2.59%	0.769	-3.31%	0.69	-4.65%	0.55
Jun.	-4.55%	0.668	-3.63%	0.717	-5.66%	0.521	-5.83%	0.484	-10.95%	0.16
Jul.	-10.71%	0.313	-11.12%	0.27	-10.97%	0.217	-8.49%	0.308	-9.81%	0.21
Aug.	-1.92%	0.856	-1.64%	0.87	-4.93%	0.576	-5.12%	0.538	-7.86%	0.32
Sep.	2.31%	0.827	5.12%	0.61	0.30%	0.973	-2.92%	0.725	-5.16%	0.51
Oct.	-8.16%	0.442	-5.17%	0.607	-7.22%	0.414	-6.09%	0.464	-9.36%	0.23
Nov.	-0.62%	0.953	0.61%	0.951	-1.17%	0.894	-0.83%	0.92	-0.71%	0.93
Dec.	-5.63%	0.596	-5.98%	0.551	-6.25%	0.479	-2.64%	0.751	-4.83%	0.54

Note: 1, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
2, constant represent January.
3, the results show that there is no January effect in SZB (after Feb, 2001) by using unadjusted equal-weighted data.

Table 12: Testing results by using adjusted Equal-weighted data for January test on B-shares.

Panel 1: Estimated coefficients by adjusted data – JANUARY, 1994-2001 on SHB

Adjusted data for SHB (Before 2001)										
	1		2		3		4		5	
Month	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value
Constant	-7.52%	0.026	-6.45%	0.070	-4.82%	0.244	-4.33%	0.314	-7.71%	0.032
Feb.	8.80%	0.063*	7.07%	0.173	10.00%	0.079*	7.90%	0.182	11.34%	0.026*
Mar.	10.01%	**0.042***	9.33%	**0.074***	4.78%	0.413	3.90%	0.521	8.46%	0.120
Apr.	4.97%	0.307	3.06%	0.553	4.07%	0.486	3.67%	0.546	5.02%	0.354
May.	3.38%	0.528	11.50%	0.035*	3.79%	0.553	5.99%	0.368	12.30%	0.025*
Jun.	3.85%	0.447	-0.29%	0.957	3.33%	0.583	-1.76%	0.781	3.40%	0.529
Jul.	5.06%	0.298	1.36%	0.792	-1.65%	0.777	1.69%	0.790	5.71%	0.292
Aug.	16.37%	**0.001***	12.53%	**0.022***	4.45%	0.446	6.87%	0.260	9.20%	**0.079***
Sep.	7.75%	0.113	5.34%	0.302	3.95%	0.498	4.71%	0.438	5.24%	0.312
Oct.	3.26%	0.502	3.65%	0.479	0.97%	0.868	-1.67%	0.783	5.01%	0.334
Nov.	5.57%	0.252	2.71%	0.599	-0.69%	0.905	-0.30%	0.961	0.07%	0.990
Dec.	5.99%	0.264	6.83%	0.206	8.94%	0.128	4.39%	0.488	9.09%	0.082*

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent January.
4, the results show that the lowest return is January in SHB (before Feb, 2001) by using adjusted equal-weighted data.

Panel 2: Estimated coefficients by adjusted data – JANUARY, 2001-2006 on SHB

Adjusted data for SHB (After 2001)										
	1		2		3		4		5	
Month	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value
Constant	-2.72%	0.530	-3.24%	0.444	-0.77%	0.851	1.09%	0.802	0.63%	0.862
Feb.	7.32%	0.211	4.31%	0.448	3.69%	0.503	1.09%	0.852	0.93%	0.849
Mar.	0.83%	0.887	1.23%	0.829	-2.04%	0.711	-1.35%	0.817	-0.61%	0.901
Apr.	-2.28%	0.684	2.04%	0.708	0.95%	0.858	-3.31%	0.556	-1.88%	0.690
May.	1.73%	0.766	2.01%	0.722	-0.41%	0.941	0.99%	0.860	-2.97%	0.545
Jun.	-0.10%	0.985	-0.97%	0.859	-3.41%	0.521	-6.14%	0.277	-7.39%	0.121
Jul.	-1.35%	0.816	-1.20%	0.833	-2.82%	0.609	-4.02%	0.493	-1.83%	0.709
Aug.	0.95%	0.866	1.48%	0.786	1.00%	0.851	-1.87%	0.740	-1.66%	0.725
Sep.	2.58%	0.657	1.74%	0.758	-0.04%	0.994	1.59%	0.778	0.57%	0.904
Oct.	-4.07%	0.468	-1.39%	0.799	-4.59%	0.388	-5.46%	0.334	-3.16%	0.504
Nov.	2.73%	0.626	4.51%	0.409	1.93%	0.716	1.03%	0.854	0.64%	0.893
Dec.	-2.71%	0.629	-0.02%	0.997	0.58%	0.913	-3.85%	0.495	-0.88%	0.852

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent January.
4, the results show that there is no January effect in SHB (after Feb, 2001) by using adjusted equal-weighted data.

Panel 3: Estimated coefficients by adjusted data – JANUARY, 1994-2001 on SZB

Adjusted data for SZB (Before 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-2.49%	0.538	-3.57%	0.396	-1.86%	0.631	-2.95%	0.378	-4.50%	0.186
Feb.	2.24%	0.704	6.64%	0.283	-0.31%	0.954	3.83%	0.419	3.40%	0.478
Mar.	6.96%	0.241	9.24%	0.136	5.48%	0.334	5.15%	0.294	4.88%	0.326
Apr.	-1.19%	0.841	6.51%	0.292	0.11%	0.985	1.64%	0.737	4.81%	0.333
May.	5.88%	0.322	9.58%	0.123	11.23%	**0.050***	10.14%	**0.041***	5.19%	0.316
Jun.	2.37%	0.701	1.99%	0.757	-2.62%	0.657	3.44%	0.501	3.78%	0.464
Jul.	-2.20%	0.710	-2.87%	0.641	-3.90%	0.509	-1.34%	0.793	-0.13%	0.980
Aug.	0.34%	0.954	-3.05%	0.621	-0.21%	0.971	0.16%	0.975	2.79%	0.574
Sep.	2.30%	0.697	5.77%	0.350	2.79%	0.621	1.26%	0.796	4.51%	0.363
Oct.	2.39%	0.686	-0.41%	0.947	-1.68%	0.767	-0.32%	0.948	0.45%	0.927
Nov.	-3.56%	0.564	-2.28%	0.723	-4.63%	0.433	-4.25%	0.406	-3.61%	0.485
Dec.	-0.41%	0.945	0.80%	0.896	-2.16%	0.703	5.26%	0.305	2.54%	0.608

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent January.
4, the results show that there is no January effect in SZB (before Feb, 2001) by using adjusted equal-weighted data.

Panel 4: Estimated coefficients by adjusted data – JANUARY, 2001-2006 on SZB

Adjusted data for SZB (After 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	10.82%	0.024	1.82%	0.733	3.42%	0.415	3.67%	0.321	5.55%	0.145
Feb.	-5.20%	0.411	2.56%	0.705	-2.28%	0.701	-0.27%	0.959	-1.59%	0.765
Mar.	-14.06%	**0.029***	-5.13%	0.450	-5.63%	0.344	-2.97%	0.568	-3.97%	0.458
Apr.	-16.44%	**0.009***	-4.46%	0.497	-4.26%	0.454	-2.38%	0.633	-5.83%	0.256
May.	-5.77%	0.343	1.78%	0.786	-2.59%	0.648	-3.31%	0.507	-4.65%	0.365
Jun.	-13.75%	**0.027***	-4.83%	0.462	-5.66%	0.320	-5.83%	0.245	-10.95%	0.036*
Jul.	-19.92%	**0.002***	-7.84%	0.249	-5.51%	0.354	-3.30%	0.526	-5.55%	0.300
Aug.	-11.12%	**0.071***	-2.84%	0.665	-4.93%	0.386	-5.12%	0.306	-7.86%	0.128
Sep.	-12.71%	**0.048***	-2.29%	0.735	0.30%	0.957	-2.92%	0.558	-5.16%	0.315
Oct.	-17.37%	**0.006***	-6.37%	0.333	-7.22%	0.207	-6.09%	0.224	-9.36%	0.071*
Nov.	-9.83%	0.109	-0.59%	0.929	-1.17%	0.837	-0.83%	0.868	-0.71%	0.890
Dec.	-14.83%	**0.017***	-7.18%	0.275	-6.25%	0.273	-2.64%	0.596	-4.83%	0.346

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent January.
4, the results show that there is a January effect in SZB (after Feb, 2001) by using adjusted equal-weighted data. But it is only appear on smallest capitalization stocks.

Table 13: Testing results by using adjusted Equal-weighted data for February test on B-shares

Panel 1: Estimated coefficients by adjusted data – FEBRUARY, 1994-2001 on SHB

Adjusted data for SHB (Before 2001)										
	1		2		3		4		5	
Month	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value
Constant	1.29%	0.698	0.03%	0.994	5.18%	0.181	3.56%	0.376	3.63%	0.306
Jan.	-8.80%	0.063	1.43%	0.780	-10.00%	0.079	-7.90%	0.182	-11.34%	0.026
Mar.	1.21%	0.803	-1.90%	0.720	-5.22%	0.356	-4.00%	0.497	-2.87%	0.595
Apr.	-3.84%	0.430	-4.14%	0.437	-5.93%	0.295	-4.23%	0.472	-6.32%	0.244
May.	-5.43%	0.311	-3.30%	0.573	-6.21%	0.319	-1.90%	0.769	0.96%	0.858
Jun.	-4.95%	0.329	-2.92%	0.599	-6.67%	0.259	-9.66%	0.118	-7.93%	0.145
Jul.	-3.74%	0.441	7.52%	0.160	-11.65%	0.042	-6.21%	0.313	-5.62%	0.299
Aug.	7.57%	0.122	-4.33%	0.416	-5.55%	0.326	-1.03%	0.861	-2.14%	0.679
Sep.	-1.05%	0.828	-3.31%	0.534	-6.05%	0.285	-3.18%	0.588	-6.09%	0.241
Oct.	-5.55%	0.255	-2.87%	0.589	-9.04%	0.112	-9.57%	0.107	-6.32%	0.224
Nov.	-3.23%	0.506	-0.59%	0.911	-10.70%	0.061	-8.20%	0.166	-11.27%	0.032
Dec.	-2.81%	0.599	-4.68%	0.425	-1.06%	0.851	-3.51%	0.568	-2.25%	0.664

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent February.
4, the results show that there is no February effect in SZB (before Feb, 2001) by using adjusted equal-weighted data.

Panel 2: Estimated coefficients by adjusted data – FEBRUARY, 2001-2006 on SHB

Adjusted data for SHB (After 2001)										
	1		2		3		4		5	
Month	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value
Constant	4.60%	0.239	1.07%	0.776	3.47%	0.299	2.18%	0.567	1.56%	0.632
Jan.	-7.32%	0.211	-4.31%	0.448	-4.24%	0.421	-1.09%	0.849	-0.93%	0.849
Mar.	-6.49%	0.239	-3.08%	0.564	-6.28%	0.206	-2.44%	0.650	-1.54%	0.739
Apr.	-9.60%	**0.072***	-2.27%	0.657	-3.29%	0.485	-7.38%	0.173	-2.81%	0.525
May.	-5.59%	0.310	-2.30%	0.667	-4.65%	0.347	-0.10%	0.985	-3.90%	0.400
Jun.	-7.42%	0.161	-5.27%	0.304	-7.65%	0.108	-7.23%	0.164	-8.32%	0.064
Jul.	-8.67%	0.118	-5.50%	0.305	-7.06%	0.156	-5.11%	0.344	-2.76%	0.551
Aug.	-6.37%	0.228	-2.83%	0.580	-3.24%	0.491	-2.95%	0.567	-2.59%	0.559
Sep.	-4.74%	0.389	-2.57%	0.631	-4.28%	0.387	0.50%	0.923	-0.36%	0.935
Oct.	-11.39%	**0.034***	-5.70%	0.268	-8.83%	0.064	-6.55%	0.207	-4.09%	0.358
Nov.	-4.59%	0.383	0.20%	0.969	-2.31%	0.623	-0.06%	0.991	-0.29%	0.947
Dec.	-10.03%	**0.060***	-4.33%	0.399	-3.66%	0.437	-4.94%	0.340	-1.81%	0.682

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent February.
4, the results show that the highest return is February but it is insignificant by using adjusted equal-weighted data (after Feb, 2001).

Panel 3: Estimated coefficients by adjusted data – FEBRUARY, 1994-2001 on SZB

Adjusted data for SZB (Before 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-0.33%	0.935	3.06%	0.496	-2.17%	0.575	0.88%	0.793	-1.10%	0.744
Jan.	-2.16%	0.703	-6.64%	0.283	0.31%	0.954	-3.83%	0.419	-3.40%	0.478
Mar.	4.80%	0.415	2.61%	0.682	5.79%	0.307	1.32%	0.787	1.48%	0.765
Apr.	-3.35%	0.569	-0.13%	0.984	0.42%	0.941	-2.19%	0.655	1.41%	0.776
May.	3.72%	0.527	2.94%	0.643	11.54%	**0.044***	6.31%	0.200	1.80%	0.728
Jun.	0.20%	0.973	-4.65%	0.483	-2.31%	0.696	-0.39%	0.939	0.39%	0.940
Jul.	-4.36%	0.459	-9.51%	0.137	-3.59%	0.543	-5.18%	0.313	-3.53%	0.495
Aug.	-1.82%	0.757	-9.68%	0.131	0.11%	0.985	-3.68%	0.454	-0.61%	0.902
Sep.	0.14%	0.981	-0.87%	0.891	3.10%	0.583	-2.57%	0.600	1.11%	0.822
Oct.	0.23%	0.968	-7.05%	0.269	-1.37%	0.809	-4.15%	0.397	-2.94%	0.552
Nov.	-5.72%	0.351	-8.91%	0.181	-4.32%	0.465	-8.08%	0.117	-7.01%	0.177
Dec.	-2.57%	0.662	-5.84%	0.360	-1.85%	0.744	1.43%	0.780	-0.86%	0.863

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent February.
4, the results show that there is no February effect in SZB (before Feb, 2001) by using adjusted equal-weighted data.

Panel 4: Estimated coefficients by adjusted data – FEBRUARY, 2001-2006 on SHB

SZB (After 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	5.62%	0.185	4.39%	0.292	1.15%	0.784	3.40%	0.357	3.96%	0.296
Jan.	5.20%	0.411	-2.56%	0.705	2.28%	0.701	0.27%	0.959	1.59%	0.765
Mar.	-8.87%	0.140	-7.69%	0.193	-3.35%	0.572	-2.71%	0.603	-2.38%	0.656
Apr.	-11.24%	0.052*	-7.02%	0.214	-1.99%	0.726	-2.11%	0.672	-4.24%	0.408
May.	-0.57%	0.920	-0.79%	0.888	-0.32%	0.955	-3.04%	0.542	-3.06%	0.550
Jun.	-8.55%	0.137	-7.40%	0.191	-3.39%	0.551	-5.56%	0.267	-9.36%	0.071*
Jul.	-14.72%	0.012*	-10.41%	0.080	-3.23%	0.586	-3.03%	0.560	-3.96%	0.459
Aug.	-5.93%	0.300	-5.40%	0.337	-2.66%	0.640	-4.85%	0.332	-6.27%	0.223
Sep.	-7.51%	0.209	-4.86%	0.409	2.58%	0.650	-2.65%	0.594	-3.57%	0.486
Oct.	-12.17%	0.036*	-8.93%	0.116	-4.94%	0.385	-5.82%	0.245	-7.77%	0.132
Nov.	-4.63%	0.417	-3.15%	0.575	1.11%	0.846	-0.56%	0.910	0.88%	0.863
Dec.	-9.63%	0.095*	-9.75%	0.087*	-3.97%	0.485	-2.37%	0.634	-3.24%	0.527

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent February.
4, the results show that there is no February effect in SZB (after Feb, 2001) by using adjusted equal-weighted data.

Table 14: Testing results by using adjusted Equal-weighted data for March test on B-shares.

Panel 1: Estimated coefficients by adjusted data – MARCH, 1994-2001 on SHB

Adjusted data for SHB (Before 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	2.49%	0.482	-1.87%	0.629	-0.04%	0.993	-0.43%	0.919	0.75%	0.854
Jan.	-10.01%	0.042	3.34%	0.531	-4.78%	0.413	-3.90%	0.521	-8.46%	0.120
Feb.	-1.21%	0.803	1.90%	0.720	5.22%	0.356	4.00%	0.497	2.87%	0.595
Apr.	-5.04%	0.315	-2.23%	0.684	-0.71%	0.902	-0.23%	0.969	-3.44%	0.551
May.	-6.63%	0.229	-1.40%	0.816	-0.99%	0.876	2.09%	0.753	3.84%	0.506
Jun.	-6.16%	0.239	-1.02%	0.859	-1.45%	0.811	-5.66%	0.371	-5.06%	0.382
Jul.	-4.95%	0.325	9.43%	**0.089***	-6.43%	0.272	-2.21%	0.726	-2.75%	0.634
Aug.	6.36%	0.206	-2.43%	0.658	-0.33%	0.954	2.97%	0.625	0.73%	0.895
Sep.	-2.26%	0.652	-1.41%	0.798	-0.83%	0.887	0.81%	0.893	-3.22%	0.563
Oct.	-6.75%	0.180	-0.97%	0.860	-3.82%	0.513	-5.57%	0.360	-3.45%	0.535
Nov.	-4.44%	0.377	1.31%	0.811	-5.48%	0.349	-4.20%	0.489	-8.40%	0.134
Dec.	-4.02%	0.465	-2.78%	0.644	4.16%	0.476	0.49%	0.938	0.62%	0.911

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March.
4, the results show that there is no March effect in SHB (before Feb, 2001) by using adjusted equal-weighted data.

Panel 2: Estimated coefficients by adjusted data – MARCH, 2001-2006 on SHB

Adjusted data SHB (After 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-1.90%	0.625	-2.01%	0.595	-2.81%	0.441	-0.26%	0.945	0.03%	0.993
Jan.	-0.83%	0.887	-1.23%	0.829	2.04%	0.709	1.35%	0.813	0.61%	0.901
Feb.	6.49%	0.239	3.08%	0.564	6.28%	0.206	2.44%	0.650	1.54%	0.739
Apr.	-3.11%	0.554	0.81%	0.873	2.99%	0.544	-4.94%	0.360	-1.28%	0.773
May.	0.90%	0.869	0.79%	0.883	1.63%	0.751	2.34%	0.649	-2.36%	0.609
Jun.	-0.93%	0.860	-2.19%	0.668	-1.36%	0.782	-4.79%	0.354	-6.79%	0.129
Jul.	-2.18%	0.691	-2.42%	0.650	-0.77%	0.880	-2.67%	0.620	-1.22%	0.792
Aug.	0.12%	0.982	0.25%	0.961	3.04%	0.538	-0.51%	0.920	-1.05%	0.812
Sep.	1.76%	0.749	0.52%	0.923	2.00%	0.697	2.94%	0.569	1.18%	0.791
Oct.	-4.90%	0.353	-2.62%	0.609	-2.55%	0.606	-4.11%	0.426	-2.55%	0.565
Nov.	1.90%	0.717	3.28%	0.521	3.97%	0.421	2.38%	0.644	1.24%	0.779
Dec.	-3.53%	0.502	-1.24%	0.808	2.62%	0.595	-2.50%	0.628	-0.28%	0.950

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March.
4, the results show that there is no March effect in SHB (after Feb, 2001) by using adjusted equal-weighted data.

Panel 3: Estimated coefficients by adjusted data – MARCH, 1994-2001 on SZB

Adjusted data for SZB (Before 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	4.47%	0.299	5.67%	0.209	3.63%	0.381	0.022	0.539	0.38%	0.917
Jan.	-6.96%	0.238	-9.24%	0.136	-5.48%	0.334	-0.0515	0.294	-4.88%	0.326
Feb.	-4.80%	0.415	-2.61%	0.682	-5.79%	0.307	-0.0132	0.787	-1.48%	0.765
Apr.	-8.15%	0.182	-2.73%	0.667	-5.37%	0.359	-0.0351	0.488	-0.07%	0.989
May.	-1.08%	0.859	0.34%	0.958	5.75%	0.327	0.0499	0.325	0.32%	0.953
Jun.	-4.59%	0.468	-7.26%	0.274	-8.10%	0.185	-0.0171	0.745	-1.09%	0.837
Jul.	-9.15%	0.134	-12.12%	0.060	-9.39%	0.126	-0.065	0.219	-5.01%	0.348
Aug.	-6.61%	0.277	-12.29%	0.056	-5.69%	0.331	-0.05	0.325	-2.09%	0.682
Sep.	-4.65%	0.444	-3.48%	0.585	-2.69%	0.645	-0.0389	0.443	-0.37%	0.942
Oct.	-4.56%	0.452	-9.66%	0.132	-7.16%	0.222	-0.0547	0.281	-4.42%	0.387
Nov.	-10.52%	0.099	-11.52%	0.085	-10.11%	0.099	-0.094	0.077	-8.49%	0.114
Dec.	-7.37%	0.227	-8.44%	0.187	-7.64%	0.193	0.0011	0.984	-2.34%	0.648

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March.
4, the results show that there is no March effect in SZB (before Feb, 2001) by using adjusted equal-weighted data.

Panel 4: Estimated coefficients by adjusted data – MARCH, 2001-2006 on SZB

SZB (After 2001)										
	1		2		3		4		5	
Month	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**	**Coeff.**	**P-value**
Constant	-3.24%	0.441	-3.31%	0.426	-2.20%	0.600	0.69%	0.851	1.58%	0.676
Jan.	14.06%	0.029	5.13%	0.450	5.63%	0.344	2.97%	0.568	3.97%	0.458
Feb.	8.87%	0.140	7.69%	0.193	3.35%	0.572	2.71%	0.603	2.38%	0.656
Apr.	-2.37%	0.677	0.67%	0.905	1.36%	0.810	0.60%	0.904	-1.86%	0.716
May.	8.29%	0.149	6.91%	0.222	3.03%	0.594	-0.33%	0.947	-0.68%	0.895
Jun.	0.31%	0.956	0.30%	0.958	-0.04%	0.995	-2.85%	0.567	-6.98%	0.176
Jul.	-5.85%	0.306	-2.71%	0.644	0.12%	0.984	-0.33%	0.950	-1.58%	0.767
Aug.	2.94%	0.606	2.29%	0.684	0.69%	0.903	-2.15%	0.666	-3.89%	0.448
Sep.	1.35%	0.820	2.84%	0.629	5.93%	0.299	0.05%	0.992	-1.19%	0.817
Oct.	-3.30%	0.562	-1.24%	0.825	-1.59%	0.779	-3.12%	0.532	-5.39%	0.294
Nov.	4.24%	0.458	4.54%	0.420	4.46%	0.434	2.15%	0.667	3.27%	0.523
Dec.	-0.76%	0.893	-2.06%	0.714	-0.62%	0.913	0.33%	0.946	-0.86%	0.866

Note: 1, * Significant level at 10%
2, size 1 represents the smallest capitalization stocks and size 5 represents the largest capitalization stocks.
3, constant represent March.
4, the results show that there is no March effect in SZB (after Feb, 2001) by using adjusted equal-weighted data.

Table 15: The timetable for Chinese New Years

Chinese New Year		
Year	**Beginning**	**Ending**
1993	23-Jan	6-Feb
1994	10-Feb	24-Feb
1995	31-Jan	14-Feb
1996	19-Feb	4-Mar
1997	7-Feb	21-Feb
1998	28-Jan	11-Feb
1999	16-Feb	2-Mar
2000	5-Feb	19-Feb
2001	24-Jan	7-Feb
2002	12-Feb	26-Feb
2003	1-Feb	15-Feb
2004	22-Jan	5-Feb
2005	9-Feb	23-Feb
2006	28-Feb	12-Feb

Note: The ending date calculated as Chinese traditionally new year ending which is the Lantern Festival.