

Value - Growth Investing and Corporate Governance in China

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Abstract

We examine the value versus growth investing in the Chinese stock market during 1996-2004. Prior literature has documented that value investing outperform growth investing in sophisticated markets. But little is known about emerging markets. We examine the monthly returns of portfolios classified by value indicators as well as governance indicators. We find that value premium does exist, although not in a clear pattern as in mature markets. We also find that corporate governance indicators do have explanatory power for stock returns. Our findings suggest that in China, high level of state-owned shares in large companies does not necessarily associate with poor performance as it does in small- and medium-sized companies. We infer that such a corporate governance indicator might proxy for a certain monopoly power (either in resources or markets), which offsets some negative effects of poor governance on the stock returns.

1. Introduction

Value versus growth investing has been widely investigated in different mature stock markets. There is generally accepted agreement that value stocks outperform growth stocks in developed markets such as the U.S (Fama and French, 1992, 1996, 1998; Lakonishok et al, 1994), Japan (Chan et al, 1991, Daniel et al 2001), and U.K (Brower et al, 1996)³. However, relatively little is known about emerging markets. The Chinese stock market suffers from problems such as poor corporate governance, dubious accounting practices, market manipulation and insider trading. Despite of these, we find that value and governance indicators provide clues for investors who seek for profitable strategies.

Our motivation comes from two sources. First, some studies about the Chinese stock market suggest the existence of size effect (Wang and Xu, 2004), which arouses our interests in further examining the value versus glamour stocks in an emerging market. Second, some indicators such as book-to-market (B/M) and earnings-to-price (E/P) are frequently used in stock valuation by analysts and investors in the Chinese stock market. Therefore, the first question we ask in this paper is: what is the empirical fact about value-growth investing in the Chinese stock market? Prior studies address that corporate governance affect firm performance and firm value (Holthausen and Larcker, 1999; Gompers et al, 2003, Wang and Xu, 2004). The second question we ask is: whether corporate governance factors play roles with value indicators in affecting stock returns? The existence of multiple ownership structures

³ Studies on more countries can be found in Yen et al (2004) for Singapore, Fama and French (1998) and Capaul et al (1993) for international countries.

of listed companies makes it possible for us to investigate the empirical facts. These empirical issues are in the concerns of not only investors, but of the policy-makers.

Using portfolio approach, we examine the value effect and governance effect. Our findings are, first, value premium does exist although in a less clear pattern as found in sophisticated markets. Second, in addition to value effects, governance indicators do have explanatory powers for stock returns in the Chinese stock market. Prior studies on corporate governance argue that corporate governance affect firm performance and stock returns. Our findings complement the literature by showing what corporate governance aspects affect the stock returns.

The difference in governance effect across subgroups implies something interesting. We find that high level of state-owned shares drags down the stock returns for firms with low or medium value measures. However, it turns out to be a positive force for the stock returns of the firms with high value measures. This suggests that in China, high level of state-owned shares in large companies does not necessarily associate with only poor governance as in small- and medium-sized companies. It is likely that such a corporate governance indicator might proxy for a certain monopoly power (either in resources or markets), which offsets some negative effects of poor governance on the stock returns.

The remainder of this paper proceeds as follows. Section 2 describes and discusses the data used for empirical analysis in this paper. Section 3 and 4 present and analyze the empirical results from one- and two-dimensional approaches respectively. Conclusions are made in section 5.

2. Data

All accounting and stock data for China A-shares⁴ are obtained from the CSMAR (China Stock Market and Accounting Research Database). The available dataset covers the period from 1991 to 2004. But our sample period covers the period from the end of December 1995 to the end of June 2004. We choose this sample period to guarantee that we have enough firms in the sample. Moreover, price stabilization was implemented from the beginning of 1996.

To be included in the sample, a company must have been traded on the last trading day of June of year t , and it must have accounting information for the fiscal year ending in previous calendar year. The first month's data for individual stocks are excluded to avoid the influence of IPO prices. To guarantee that the stock price is meaningful, the stocks that are stopped trading during our sample period are excluded⁵. Also, the financial institutions are excluded due to the incompatibility of their debt and equity structures with the non-financial companies. On average, each year we have 778 stocks in the sample.

Two categories of variables are used in our empirical analysis. Value variables include the book-to-price ratio, earnings-to-price ratio (E/P), cash flow-to-price ratio (CF/P), dividend yield (Div/P), and sales-to-price ratio (S/P). Governance indicators include tradable shares-to-total shares (Tr/To), state-owned shares-to-total shares (So/To), concentration of state-owned shares (So/Tr), and balance of power of

⁴ At the establishment of the market, A-share stocks were available for domestic investors with function currency in RMB. The B-share market was introduced in 1992, intended for foreign investors using U.S. dollars or Hong Kong dollars. A-share and B-share stocks are listed on the China stock exchanges (Shanghai and Shenzhen).

⁵ These stocks are denoted as ST or PT stocks.

financial institutions among the top 10 shareholders (FII/Top10). The correlations matrix about these variables is presented in table 1.

[Insert Table 1]

3. One-dimensional Approach and Results

We first examine the monthly returns of the portfolios formed on a single value or governance variable. As in prior studies about sophisticated markets, the value-based criteria for constructing stock portfolios include book-to-market ratio, earnings-to-price ratio, cash flow-to-price ratio, sales-price ratio, and dividend yield. According to the existing literature, these ratios are used to proxy the expected future growth. The governance indicators are discussed in section 3.2.

Wang *et al* (2004) find that size effect exists in China stock market. Therefore, we use the two-dimensional approach to control for it. For year t , sample companies are first sorted and segregated into four size quartiles based on their market capitalization⁶ of June in calendar year t . One critical issue facing the Chinese stock markets is the existence of non-tradable shares. This leads to the problem in calculating market capitalization. We account tradable shares instead of market capitalization to avoid inaccurate estimation of size.

3.1. Is There Any Value Effect?

A. Book-to-market ratio

Each year, we assigned all stocks in each size quartile demonstrated earlier to their corresponding decile-portfolios using the measure book-to-market ratio (B/M). These

⁶ Here we use the market capitalization of all tradable shares.

portfolios range from extreme growth (stocks with low B/M ratio) to extreme value (stocks with high B/M ratio). The book value is taken from CSMAR financial dataset for the end of the previous fiscal year, and market value is taken from CSMAR market dataset at portfolio formation time. The portfolios are rebalanced annually. We focus on monthly average returns for the reason of the limited length of the sample period⁷, which does not allow us to perform long-term post-formation analysis.

Panel A of Table 3 shows that, for equal-weighted portfolios based on book-to-market ratio (B/M), extreme value outperforms extreme growth and the average value premium is about 0.15% per month. Size effect exists which is consistent with the result of Wang and Xu (2004).

[Insert table 3]

Subgroup results show that, for small and large companies, extreme value outperforms extreme growth (0.76% and 0.51%). However, only in the largest quartile, the tendency is for returns to increase as the portfolios move from growth to value. For the other three subgroups, the U-shape relationship exists between B/M and stock returns. Lakonishok *et al* (1994) document that the B/M ratio might be a noisy proxy for value or glamour stocks. Our findings suggest that in the Chinese stock market, value stocks outperform glamour stocks by less compared with the results about sophisticated markets. Another possibility is that because of the existence of non-tradable shares, there might be measurement errors in B/M ratio⁸.

⁷ The Chinese stock market started from 1990.

⁸ Strictly, we should use the book equity value of tradable shares. However, in practice, investors rarely use this measure for stock valuation because of the difficulty in obtaining the accurate information about the tradable shares percentage.

B. Earnings-to-price ratio

Each year, we sort stocks in the size quartiles into quintiles based on earnings-to-price ratio. Quintiles instead of deciles are used to guarantee that we have enough observations because we exclude the stocks with non-positive earnings. Earnings are taken from financial data of previous fiscal yearends.

Panel B of Table 3 presents the returns of portfolios formed on earnings-to-price ratio (E/P). The results show that size effect exists. On average, value stocks underperform glamour stocks by 0.17%. But subgroups results show that within small quartile group, the extreme growth stocks produce returns 0.80% higher than that of extreme value stocks. In the other three size groups, extreme value stocks (with the highest E/P ratio) consistently outperform the glamour stocks (with the lowest E/P ratio). Prior literature addresses that E/P ratio is a noisy measure. Stock with low E/P might have temporarily depressed earnings. Our result suggests that investors might interpret the E/P ratio of small companies as somewhat different from that of medium and large companies.

C. Cash flow-to-price ratio

The cashflow-to-price ratio is used in prior literature as an alternative value indicator. We examine the returns of portfolios classified by this indicator. Cash flow is measured as earnings plus depreciations⁹. Data of depreciation is taken from financial dataset of previous fiscal yearends.

Results presented in panel C of Table 3 show that, on average, value stocks

⁹ The operating cash flow-to-price ratio is a better indicator but CSMAR has no data until 1998.

underperform the glamour stocks by 0.47%, even more than E/P based portfolios (-0.17%). It is consistent with prior studies in that portfolios formed on the basis of CF/P produce relatively larger return spreads than portfolios based on E/P (Chan et al, 1991). The results about subgroups show that only large companies generate value premium (0.06% per month).

D. Dividend yield

The effectiveness of dividend-yield strategies has been discussed in prior literature such as Visscher and Filbeck (2003). We examine whether this strategy works in the Chinese stock market. Panel D1 of Table 3 presents the results. On average, the portfolios with highest D/P ratio produce returns higher than that of the portfolios with the lowest D/P by 0.19%. The “U-shaped” relationship between dividend yield and stock returns can be observed from the results. Prior literature debates that a U-shaped relationship would indicate that both companies with high-dividend yields and companies that do not pay dividends tend to outperform companies with dividend yields between the extremes (Litzenberger and Ramaswamy 1979; Blume 1980; Elton, Gruber, and Rentzler 1983; Keim 1985, 1986; Christie 1990). It seems that in an emerging market like the Chinese stock market, firms that pay middle level dividends is even severely discounted by the investors.

We use a modified dividend yield as an alternative measurement. We replace dividend payment in year t with the average dividend payments of past three years (AD). Portfolios formed by this measure produce a more clearer value pattern and

higher value premium (0.22%)¹⁰, as shown in Panel D2 of Table 3.

E. Sales-to-price ratio

Sales data is less volatile than earnings, and thus is suitable to be used as an useful value indicator. Each year, we sort stocks by sales-to-price ratio and form into deciles portfolios. Annual sales data is taken from CSMAR financial dataset of previous yearends. Results presented in panel E of Table 3 shows that, on average, value stocks outperform glamour stocks by about 0.23% per month. Subgroup results show that the higher value premium (0.79% and 0.53%) is generated by large companies in the third and fourth quartiles. In small companies, returns of value stocks are 0.75% lower than that of growth stocks. It seems that similar to the results based on E/P ratio, investors interpret the information conveyed by the ratio of sales-to-price of small companies as different from that of medium and large ones. .

Lakonishok et al (1994) argue that past performance measures the expectations of naïve investors who extrapolate past performance far into the future. In an emerging market, we cannot exclude the possibility of the existence of naïve investors. We use sales growth (SG)* and weighted average sales growth (WASG)* of the past three years as the indicators to construct decile portfolios, with low ratios for value stocks and high ratios for growth stocks.

Panel F.1 and F.2 of Table 3 shows the returns of portfolios formed on sales growth (SG)¹¹ and weighted average sales growth (WASG). A total weighted average sales

¹⁰ At the end of 2000, the listed companies must pay cash dividends before it can make seasonal offerings, regulated by the Chinese Securities Regulation Committee.

¹¹ Sales growth (from year t-1 to year t) is calculated as $SG_{t-1} = \frac{S_t - S_{t-1}}{S_{t-1}}$.

growth ratio is estimated by assigning weights to the SG series, weight of 1 for SGt-3, 2 for SGt-2, and 3 for SGt-1. The sum of the sales growth figures is then divided by the sum of the weights.

SG/P seems to be a useful indicator for small and medium companies. Value stocks outperform growth stocks by 0.12-0.20% per month. However, portfolios based on WASG consistently exhibit “growth premium” from 0.34-1.29% per month. It seems that WASG is interpreted as a very positive proxy for expected returns by the investors in the Chinese stock market.

In summary, Table 3 (through panel A to panel E) shows that value stocks generally outperform glamour stocks, except for portfolios based on E/P and CF/P. However, subgroup differences exist. Value indicators are more useful in large companies. This suggests that in the Chinese stock market, investors seem to interpret the value indicator as something different when they invest in small firms. Past growth rate of sales is useful in understanding the “growth premium” as shown in Panel F1 and Panel F2 of Table 3. Consistent with prior literature, size effect exists in the Chinese stock market.

3.2 Is There Any Governance Effect?

As we mentioned in early section, prior literature finds that corporate governance affect firm performance and firm value (Holthausen and Larcker, 1999; Gompers et al 2003). In this section, we examine the governance effect in the Chinese stock market. With the available data, we investigate four specific aspects (1) percentage of tradable shares (free float); (2) percentage of state-owned shares; (3) concentration of

state-owned shares; and (4) balance of power of financial institutions among the top 10 shareholders. Results are presented in Table 4.

A. Percentage of tradable shares

One unique feature of China stock market is that there exist a certain part of shares that cannot be traded in the exchanges. These non-tradable shares mainly include shares owned by government and by other companies (legal-person shares). The complicated ownership structure implies the difference and complexity in corporate governance, which in turn, affect the firm performance.

Wang and Xu (2004) argue that the percentage of tradable shares serves as a signal of the quality of corporate governance. Each year, we sort stocks into deciles according to the percentage of tradable shares available at formation date. This percentage is taken from CSMAR and FinLab dataset¹².

Panel A of Table 4 shows that stock returns increase with the increase of the percentage of tradable shares. The portfolio with the highest tradable share percentage outperforms the portfolio with the lowest tradable share percentage by about 1.28% per month. Still we can observe a clear size effect. Governance premium varies from 1.27% (the smallest quartile) to 0.83% (the largest quartile) per month. This suggests that in an emerging market, the percentage of tradable shares is much more important for small companies than for large companies, indicating that this variable is also a proxy for liquidity.

[Insert Table 4]

¹² Developed by Tianxiang Company.

B. Percentage of state-owned shares

Panel B of Table 4 shows the returns of portfolios formed by percentage of state-owned shares. Each year, we sort stocks into quartiles according to the percentage of state-owned shares available at formation date¹³. The percentage data is taken from CSMAR and Tianxiang dataset.

On aggregate, the percentage of state-owned shares is negatively related to stock returns. Our findings support the hypothesis that corporate governance affects firm performance and firm value. This is consistent with the critiques on the low efficiency of state-owned-enterprises. However, we notice that there exist differences among subgroups. For small companies, the portfolio with the highest percentage of state-owned shares generates the highest return 1.54% per month. However, in the second and third quartiles, the portfolios with the highest percentage of state-owned shares generate the lowest stock returns. But in the largest group, the lowest return does not occur in the portfolios with the highest percentage of state-owned shares. This might suggest that, for large companies, the high percentage of state-owned shares might proxy for the monopoly power that offsets some negative effect of problematic governance on stock returns.

C. Concentration of state-owned shares

Panel C in Table 4 presents the returns of portfolios formed on ownership concentration. Each year, we sort stocks into quartiles according to the ratio of state-owned shares to tradable shares that are available at formation date.

¹³ Here we use quartiles due to guarantee we have enough observations in the portfolios.

On average, the returns of portfolios decrease with the increase of concentration of state-owned shares. The average discount is about 0.18% per month, higher than that of portfolios based on the percentage of state-owned shares. However, subgroup results show that the governance effect is different for firms within the largest size group. In the other three size groups, portfolio returns decrease with the increase of the concentration of state-owned shares. But in the largest size quartile, the return of the portfolio with the highest concentration of state-owned shares is not the lowest. Similar to the results shown in Panel B, this might suggest the positive effect of concentration for the stock returns. In the Chinese stock market, it is more likely that percentage of state-owned shares and its concentration imply the monopoly power either in resources or markets.

D. Balance of power of financial institutions

Prior literature argues that agency problems in financial institutions affect asset prices (Allen, 2001). We examine the effect of the balance of power of financial institutions on stock returns. The balance of power is defined as the ratio of shares held by financial institutions¹⁴ to the sum of top 10 tradable shares. Each year, we sort stocks into quintiles based on the balance of power ratio that is available at formation date. Due to the data limitation, the sample period for this analysis is from 1999 to 2004.

Panel D in Table 4 presents the results. It shows that stock returns decrease with the increase of balance of power of financial institutions. Because of the sample period

¹⁴ Here financial institutions include commercial banks, securities firms, trust firms, and mutual funds.

covered, all the portfolios exhibit losses, reflecting the fact that the Chinese stock market suffered from the slump during this period. On average, the discount is about 0.31% per month. One view is that financial institutions, especially the mutual funds, is closely related to the listed companies and therefore have advantages in accessing the inside information. Our result does not support this view. The balance of power of financial institutions has more severe negative effect on the stock returns for the firms whose financial institutions' holdings are higher (the fourth and fifth quintiles). This might indicate the dark-side of the agency problem in financial institutions. It might also suggest the negative effect on liquidity due to the possible market manipulation.

In summary, stock returns of portfolios based on governance indicators reflect the negative effect of poor governance. But this effect differs across the subgroups. For large companies, state-owned shares imply a certain monopoly power that is positive for stock returns.

4. Two-dimensional Approach and Results

The earlier studies on mature market show that two-variable approach might capture more information about stock returns than one-variable approach does (Lakonishok et al 1994). We borrow this idea to perform further analysis on value-growth investing and effect of corporate governance on stock returns. First, we examine the portfolios based on indicators of expected future growth and past growth. Then we investigate the portfolios formed by governance and value indicators. The purpose is to identify the factors that have more explanatory power for the stock returns in Chinese stock market.

4.1 Expected Future Growth with Past Growth

We use the combinations of measures of expected future growth with past growth to construct portfolios. Each year, we sort stocks independently into three groups -- top 30 percent, middle 40 percent, and bottom 30 percent, by weighted average of sales growth (WASG) and one of the four value variables (B/M, E/P, CF/P, and D/P). Then we take intersections resulting from the two classifications. By combining WASG, which measures the past growth, with one of the other four variables, we form four combinations under the name of WASG-B/M, WASG-E/P, WASG-CF/P, and WASG-D/P. Each contains nine portfolios. Extreme value stocks are those with highest B/M, E/P, CF/P, D/P (top 30 percent) and lowest WASG (bottom 30 percent). Extreme growth stocks are those with lowest B/M, E/P, CF/P, D/P (bottom 30 percent) and highest WASG (top 30 percent). Results are presented in Table 5.

[Insert Table 5]

Table 5 shows that for portfolios formed on book-to-market ratio (B/M) and dividend yield (D/P and WAD/P), extreme value stocks outperform extreme growth stocks. While for portfolios formed by earnings-to-price ratio (E/P) and cash flow-to-price ratio (CF/P), extreme growth stocks outperform extreme value stocks. This is consistent with the results from one-variable approach. We infer that this might be due to either the dubious accounting practices or investors' interpretations.

4.2 Governance Indicators with Value Variables

We employ two-variable approach method to examine the explanatory power of governance variables. Each year, we sort stocks independently into three groups --

top 30 percent, middle 40 percent, and bottom 30 percent, by one of the four governance indicators: percentage of tradable shares (free float, Tr/To), percentage of state-owned shares (So/To), concentration of state-owned shares (So/Tr), and balance of power of financial institutions (FI/T10), and by one of the five value variables (B/M, E/P, CF/P, S/P and D/P). Then we take intersections resulting from the two classifications.

The logic is that if value indicators capture all the information, there will be no governance pattern shown on the above governance variables. If even combined with value indicators, there are still governance effects, then we can infer that governance indicators have explanatory powers on stock returns. The empirical results are presented in Table 6.1 to Table 6.4.

A. Percentage of tradable shares with value variables

Panel A of Table 6.1 presents equal-weighted returns of the portfolios based on percentage of tradable shares and book-to-market ratio. When we examine the results along the free float dimension, we find that the returns increase with the increase in the percentage of tradable shares even stocks are classified into B/M portfolios. More interesting, we find that the returns of high B/M portfolios are all higher than the returns of high B/M portfolios from one-dimensional approach (1.38%), and the returns of low B/M portfolios are all lower than the return of low B/M portfolio from one-dimensional approach (1.23%). This indicates that when combining free float with B/M, the information in the two measures is more clearly identified. The percentage of tradable shares serves as a variable that has explanatory power for

cross-sectional return differences for the Chinese stock market.

[Insert Table 6.1]

Panel B and Panel C of Table 6.1 show the results for portfolios formed on free float-E/P, and free float - CF/P. Although the value pattern is still not clear, as it is in one-variable approach, governance pattern is clear. In general, returns of portfolios increase with the increase of free float.

Returns of portfolios based on free float and S/P (sales-to-price ratio) are presented in Panel D of Table 6.1. A much clearer governance pattern can be observed. Returns of portfolios increase with the increase of free float. In addition, value pattern is clearer than it is in one-indicator approach. This might be due to the use of sales data. Usually it is more difficult to manipulate sales data than earnings. Therefore in China market, book-to-market ratio and sales-to-market ratio are more powerful as value indicators.

Returns of portfolios based on free float with average dividend yield exhibit clearer governance pattern, as shown in Panel E of Table 6.1. Value pattern turns out to be clearer compared with the results from one-variable approach.

B. Percentage of state-owned-shares with value variables

Panel A of table 6.2 presents results for portfolios classified by state-owned-shares percentage (So/To) and book-to-market ratio (B/M). Governance indicator has explanatory power for returns even after sorting by B/M. Specifically, within the set of firms whose B/M ratios are medium, the difference in returns between the low and high state-owned shares subgroups is about 0.31% per month (1.31% vs. 0.99%),

3.72% per year. However, within the set of firms whose B/M ratios are high, the returns of high state-owned shares subgroup (1.12%) is not the lowest. The lowest subgroup return (0.94%) occurs within the firms with low level of state-owned shares. As in the one-variable approach, this suggests the possibility of the monopoly power of the companies.

[Insert Table 6.2]

Returns of portfolios (So/To, E/P), (So/To, CF/P), (So/To, S/P) and (So/To, AD/P) are respectively presented in Panel B, C, D and E of table 6.2. The results confirm the explanatory power of percentage of state-owned shares (So/To). For example, among firms with low CF/P ratios, returns vary with the percentage of state-owned shares from 1.38% to 0.94%. As in So/To-B/M portfolios, the subgroup with high percentage of state-owned shares turns out to be somewhat unique. It does not produce the lowest return as in other two subgroups. Again, this suggests the existence of monopoly power in large companies with high percentage of state-owned shares.

C. *Concentration of state-owned shares with value variables*

Table 6.3 presents the results for portfolios classified by concentration of state-owned-shares (So/Tr) and one of the five value indicators used for analysis in previous sections. Quite similar to the results from section B, there exhibits a clear governance pattern. Returns of portfolios decrease with the increase of the concentration of state-owned shares. Again, the subgroup with high concentration shows its uniqueness. High concentration of state-owned shares does not necessarily

imply the lowest return in the corresponding subgroup. Again, this suggests the existence of monopoly power owned by such companies.

[Insert Table 6.3]

D. Balance of power and value variables

Table 6.4 presents the equal-weighted returns of portfolios based on financial institutions' holdings. The results show that the higher the ownership held by financial institution, the more the loss. This suggests that in China stock market, financial institutions act more as passive investors. They do due diligence only for the investment return but not actively interfere in operations or governance. Therefore, although they have more access to the inside information compared with individual or other non-financial institutional investors, they cannot avoid the negative influence from the market.

[Insert Table 6.4]

Portfolios based on balance of power and dividend yield generate quite different results. Returns are positive for low and high balance of power groups, and U-shape relationship exists between dividend yield and returns, as discussed in prior literature (Chan et al, 2004).

5. Conclusion

We use portfolio approach in the empirical analysis on the effect of value and governance indicators on stock returns. Given the above findings and interpretations we can conclude the following. First, value stocks generally outperform glamour stocks in the Chinese stock market. But the value pattern (from one- and two-variable

approach) is not that clear as in mature markets.

Second, our findings identify the governance indicators (percentage of tradable shares, percentage of state-owned shares, concentration of state-owned shares, and balance of power of financial institutions) that are useful in understanding the cross-sectional difference in stock returns.

Finally, there exist differences across size groups. Large companies with high state-owned shares percentage tend to have some monopoly power which offset the negative effect of poor corporate governance. The critical point is how the monopoly power will be used within current corporate governance scheme.

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Table 1. Brief Summary on Relevant Literature

Indicator	Mature Market	Emerging Market
Value-based	Value stocks outperform growth stocks in: ■ U.S (Fama & French, 1992, 1996; Lakonishok et al, 1994); ■ Japan: (Chan et al, 1991; Daniel et al , 2001) ■ U.K: Brower et al (1996) ■ Singapore:Yen et al(2004) ■ International: Fama and French (1998), Capaul et al (1993)	China: No clear value premium pattern (B/M) Size effect, (Wang et al , 2004)
Governance-based	Corporate governance affect firm performance: ■ Gompers et al (2003) ■ Holthausen and Larcker (1999)	Governance index is positively related to Tobin's q: ■ Bai, et al (2003) Free float is positively related to stock returns : ■ Wang et al(2004)

**Table 2. Correlation Matrix
of Variables Based on Which Portfolios are Constructed**

The correlation matrix presents the sample period mean of the variables used for empirical analysis. The following six variables are value indicators. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio. D/P is dividend yield, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment. The following four variables are governance indicators. Tr/ To is percentage of tradable shares. So/To is percentage of state-owned shares. So/Tr is concentration (defined as state-owned shares divided by tradable shares). FI/T10 is balance of power of financial institutions (defined as shares held by financial institutions divided by the sum of top 10 tradable shares). The accounting data in value indicators for year t are taken from CSMAR financial dataset for the end of year t-1. The data for governance indicators are taken from market dataset of CSMAR and FinLab available at portfolio formation data.

	B/M	E/P	CF/P	S/P	AD/P	D/P	Tr/ To	So/To	So/Tr	FI/T10
B/M	1.000									
E/P	0.025	1.000								
CF/P	0.011	0.915	1.000							
S/P	0.002	0.582	0.610	1.000						
AD/P	-0.020	0.848	0.859	0.525	1.000					
D/P	-0.032	0.827	0.827	0.480		1.000				
Tr/ To	-0.044	-0.333	-0.286	-0.183	-0.336		1.000			
So/To	-0.004	0.210	0.171	0.101	0.210		-0.317	1.000		
So/Tr	0.009	0.506	0.579	0.395	0.516		-0.436	0.601	1.000	
FI/T10	-0.002	-0.117	-0.061	-0.064	-0.096		0.240	-0.111	-0.099	1.000

Table 3. Monthly Returns for Portfolios Based on Value Indicators

This table presents the means of equal-weighted portfolio returns during July of 1996 to July of 2004. Portfolios are constructed in ascending order based on B/M, E/P, CF/P, S/P, AD/P (and D/P), SG and WASG. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio. D/P is dividend yield, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment. SG is sales growth (in year t), WASG is weighted average of sales growth of past three years. Portfolios are arranged from extreme growth (stocks with low value variable) to extreme value (stocks with high value variable). For panel F1 and F2, the sequence is reverse.

Panel A . B/M											
	Low	2	3	4	5	6	7	8	9	High	H-L
Small	1.53	2.26	1.84	1.36	1.96	2.00	1.47	2.12	1.84	2.28	0.76
Size2	1.52	1.41	1.73	1.38	0.94	1.22	1.09	1.53	2.01	1.26	-0.27
Size3	1.46	1.00	1.34	0.75	1.18	0.81	1.31	1.55	0.94	1.06	-0.40
Large	0.43	0.88	0.50	0.44	0.76	0.52	1.10	0.95	1.02	0.94	0.51
All	1.23	1.39	1.35	0.98	1.21	1.14	1.24	1.54	1.45	1.38	0.15

Panel B . E/P						
	Low	2	3	4	High	H-L
Small	2.11	1.60	2.01	2.20	1.31	-0.80
Size2	1.42	1.22	1.32	1.55	1.44	0.02
Size3	1.14	0.98	0.99	1.26	1.24	0.10
Large	0.89	0.76	0.53	0.72	0.91	0.02
All	1.39	1.14	1.21	1.43	1.23	-0.17%

Panel C. CF/P						
	Low	2	3	4	High	H-L
Small	1.99	2.43	2.13	1.52	1.24	-0.76
Size2	1.83	1.48	1.69	1.14	0.95	-0.87
Size3	1.40	0.95	0.93	1.32	1.09	-0.31
Large	0.86	0.65	0.84	0.68	0.92	0.06
All	1.52	1.38	1.40	1.16	1.05	-0.47

Table 3. (Continued)

Panel D1. D/P					
	Low	2	3	High	H-L
Small	1.72	-23.34	-1.45	1.87	0.14
Size2	1.47	-5.46	1.37	1.38	-0.09
Size3	1.14	-4.39	0.69	1.47	0.33
Large	0.62	-0.92	0.59	0.99	0.36
All	1.24	-8.53	0.30	1.43	0.19

Panel D2. WAD/P					
	Low	2	3	High	H-L
Small	1.62%	1.88%	2.05%	1.75%	0.13%
Size2	1.34%	1.22%	1.49%	1.50%	0.16%
Size3	0.97%	0.88%	1.21%	1.42%	0.45%
Large	0.67%	0.74%	0.80%	0.81%	0.14%
All	1.15%	1.18%	1.39%	1.37%	0.22%

Panel E. S/P											
	Low	2	3	4	5	6	7	8	9	High	H-L
Small	1.99	2.22	2.21	1.95	1.86	1.89	1.85	1.88	1.46	1.24	-0.75
Size2	0.65	1.18	1.66	1.95	1.55	1.28	1.81	1.23	1.81	0.99	0.34
Size3	0.62	0.89	1.44	1.21	1.37	1.17	1.00	1.30	1.05	1.42	0.79
Large	0.56	0.85	0.88	0.52	0.47	0.47	1.14	0.80	0.78	1.09	0.53
All	0.95	1.29	1.55	1.41	1.3	1.20	1.4	1.30	1.28	1.18	0.23

Panel F1. SG/P											
	Low	2	3	4	5	6	7	8	9	High	L-H
Small	1.31	2.26	1.44	2.65	2.09	2.27	1.87	1.99	1.58	1.11	0.20
Size2	1.50	1.13	1.17	1.80	1.13	1.08	1.97	1.46	1.54	1.38	0.12
Size3	1.20	0.68	0.86	0.60	0.94	1.58	1.34	1.08	1.51	1.63	-0.43
Large	0.44	0.45	0.66	1.01	0.87	0.87	0.57	1.54	0.98	0.48	-0.04
All	1.11	1.13	1.03	1.52	1.25	1.45	1.44	1.52	1.40	1.15	-0.04

Panel F2. WASG											
	Low	2	3	4	5	6	7	8	9	High	L-H
Small	1.40	1.94	1.32	1.58	2.16	2.50	2.33	1.89	1.76	1.75	-0.34
Size2	0.46	0.86	1.25	1.43	1.36	1.43	2.25	1.89	1.58	1.55	-1.10
Size3	0.66	0.51	0.83	1.23	0.97	0.75	1.38	1.71	1.32	1.88	-1.22
Large	0.13	0.39	0.71	0.43	0.70	0.92	1.12	0.78	0.88	1.41	-1.29
All	0.66	0.93	1.03	1.17	1.30	1.40	1.77	1.57	1.38	1.65	-0.99

Table 4. Monthly Returns for Portfolios Based on Governance Indicators

This table presents the means of equal-weighted portfolio returns (%) during July of 1996 to July of 2004. Portfolios are constructed in ascending order based on the following four variables. Tr/ To is percentage of tradable shares. So/To is percentage of state-owned shares. So/Tr is concentration (defined as state-owned shares divided by tradable shares). FI/T10 is balance of power of financial institutions (defined as shares held by financial institutions divided by the sum of top 10 tradable shares). The data for governance indicators are taken from market dataset of CSMAR and FinLab available at portfolio formation data.

Panel A. Tr/To

	Low	2	3	4	5	6	7	8	9	High	H-L
Small	1.01	1.29	1.60	2.27	1.25	1.64	2.33	1.99	2.74	2.27	1.27
Size2	0.63	1.17	1.01	1.10	1.23	2.20	0.73	1.71	1.91	2.34	1.71
Size3	0.44	1.04	0.82	0.84	1.21	1.31	1.38	1.34	1.20	1.77	1.33
Large	0.67	0.40	0.84	0.85	0.20	0.58	1.15	0.48	0.91	1.50	0.83
All	0.69	0.97	1.07	1.26	0.97	1.43	1.39	1.38	1.69	1.9	1.28

Panel B. So/To

	Low	2	3	High	H-L
Small	1.42	1.50	1.36	1.54	0.12
Size2	1.25	1.25	1.15	1.10	-0.16
Size3	1.06	0.87	1.40	0.81	-0.25
Large	0.78	0.78	0.44	0.71	-0.06
All	1.13	1.10	1.09	1.04	-0.09

Panel C. So/Tr

	Low	2	3	High	H-L
Small	1.32	1.66	1.74	1.05	-0.27
Size2	1.25	1.28	1.23	0.98	-0.28
Size3	1.11	1.25	1.00	0.96	-0.16
Large	0.78	0.68	0.36	0.77	-0.01
All	1.12	1.22	1.08	0.94	-0.18

Panel D. FI/T10

	Low	2	3	4	High	H-L
Small	-0.89	-0.60	-0.60	-0.95	-0.99	-0.10
Size2	-0.78	-0.83	-0.52	-1.04	-1.27	-0.49
Size3	-0.71	-1.13	-0.97	-1.12	-1.09	-0.38
Large	-0.57	-0.61	-0.81	-1.06	-1.06	-0.49
All	-0.74	-0.79	-0.72	-1.04	-1.10	-0.37

**Table 5. Monthly Returns for Portfolios: Two-dimension Classification
(Sorted by Value Indicators)**

This table presents the mean equal-weighted portfolio returns during July of 1996 to June of 2004. Portfolios are constructed in ascending order based on B/M, E/P, CF/P, S/P, AD/P (and D/P), SG and WASG. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio. D/P is dividend yield, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment. SG is sales growth (in year t), WASG is weighted average of sales growth of past three years.

A. WASG with B/M

	B/M (%)		
	L	M	H
WASG			
L	0.58	1.32	1.92
M	1.14	1.30	1.61
H	0.99	1.25	1.45

B. WASG with E/P

	E/P (%)		
	L	M	H
WASG			
L	1.33	1.12	1.25
M	1.35	1.31	1.24
H	1.30	1.15	1.10

C. WASG with CF/P

	CF/P (%)		
	L	M	H
WASG			
L	1.66	1.30	0.90
M	1.44	1.40	1.18
H	1.78	1.07	1.04

D. WASG with AD/P

	AD/P (%)		
	L	M	H
WASG			
L	1.33	1.33	1.59
M	1.39	1.28	1.56
H	0.80	1.25	1.17

Table 6. 1 Monthly Returns for Portfolios: Sorted by Percentage of Tradable Shares with Value Indicators, July 1996-June 2004)

This table presents the equal-weighted returns of portfolios, which are formed on percentage of tradable shares and one of the following value indicators. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment.

A. Percentage of Tradable shares with B/M

	B/M (%)		
	L	M	H
L	0.70	0.97	1.43
M	0.90	1.28	1.71
H	1.19	1.46	1.89

B. Percentage of Tradable shares with E/P

	E/P (%)		
	L	M	H
L	1.17	1.11	1.05
M	1.22	1.20	1.58
H	1.39	1.46	1.16

C. Percentage of Tradable shares with CF/P

	CF/P (%)		
	L	M	H
L	1.51	1.37	1.02
M	1.46	1.21	1.28
H	1.59	1.32	1.53

D. Percentage of Tradable shares with S/P

	S/P (%)		
	L	M	H
L	0.68	1.12	1.16
M	1.21	1.32	1.40
H	1.33	1.52	1.87

(Table 6.1 continued)

E. Percentage of Tradable shares with AD/P
AD/P (%)

	L	M	H
L	0.87	0.96	1.21
M	1.06	1.13	1.73
H	1.54	1.47	1.69

**Table 6.2 Monthly Returns for Portfolios:
Sorted by Percentage of state-owned shares with Value Indicators
(July 1996-June 2004)**

This table presents the equal-weighted returns of portfolios, which are formed on percentage of state-owned shares and one of the following value indicators. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment.

A. Percentage of state-owned shares with B/M (%)

	B/M		
	L	M	H
L	0.81	1.30	0.94
M	0.76	1.21	1.48
H	0.76	0.99	1.12

B. Percentage of state-owned shares with E/P (%)

	E/P		
	L	M	H
L	1.17	1.10	0.88
M	1.03	1.17	1.21
H	0.89	0.89	1.04

C. Percentage of state-owned shares with CF/P (%)

	CF/P		
	L	M	H
L	1.38	1.09	0.88
M	0.98	1.23	1.12
H	0.94	1.11	1.07

D. Percentage of state-owned shares with S/P (%)

	S/P		
	L	M	H
L	1.00	1.13	0.84
M	0.96	1.10	1.37
H	0.55	1.22	1.08

(Table 6.2 continued)

E. Percentage of state-owned shares with AD/P (%)

	AD/P		
	L	M	H
L	1.13	0.94	0.95
M	1.04	0.95	1.49
H	0.78	0.85	1.09

**Table 6.3 Monthly Returns for Portfolios:
Sorted by Concentration of state-owned shares with Value Indicators
(July 1996-June 2004)**

This table presents the equal-weighted returns of portfolios, which are formed on concentration of state-owned shares and one of the following value indicators. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment.

A. Concentration of state-owned shares with B/M(%)

	B/M		
	L	M	H
L	0.79	1.32	0.96
M	0.78	1.19	1.35
H	0.90	0.99	1.21

B. Concentration of state-owned shares with E/P(%)

	E/P		
	L	M	H
L	1.18	1.13	0.89
M	1.10	1.13	0.74
H	0.59	0.93	1.27

C. Concentration of state-owned shares with CF/P(%)

	CF/P		
	L	M	H
L	1.33	1.14	0.90
M	1.10	1.21	1.02
H	1.18	1.06	1.17

D. Concentration of state-owned shares with S/P(%)

	S/P		
	L	M	H
L	0.99	1.15	0.85
M	1.00	0.98	1.35
H	0.45	1.28	1.16

E. Concentration of state-owned shares with AD/P (%)

	AD/P		
	L	M	H
L	1.09	0.97	0.96
M	1.08	0.95	1.29
H	0.71	0.84	1.28

**Table 6. 4 Monthly Returns for Portfolios: Sorted by Balance of Power of
Financial Institutions with Value Indicators
(July 1999-June 2004)**

This table presents the equal-weighted returns of portfolios, which are formed on balance of power of financial institutions and one of the following value indicators. B/M is book-market-ratio, where M=market capitalization of tradable shares of the corresponding time point. E/P is earnings-to-price ratio, CF/P is cash flow-to-price ratio, S/P is sales-to-price ratio, and AD/P is average dividend yield, where dividend is the average of past three years' dividend payment.

A. FI/T10 with B/M

	B/M (%)		
	L	M	H
L	-0.70	-0.78	-0.74
M	-0.81	-0.89	-0.72
H	-1.11	-1.09	-1.04

B. FI/T10 with E/P

	E/P (%)		
	L	M	H
L	-0.91	-0.96	-0.36
M	-1.34	-0.94	-0.51
H	-1.34	-1.00	-0.56

C. FI/T10 with CF/P

	CF/P (%)		
	L	M	H
L	-0.98	-1.03	-0.32
M	-1.01	-0.92	-0.51
H	-1.39	-1.15	-0.46

D. FI/T10 with S/P

	S/P (%)		
	L	M	H
L	-1.34	-0.80	-0.59
M	-1.11	-0.96	-0.67
H	-1.57	-1.23	-0.71

(Table 6.4 continued)

E. FI/T10 with AD/P

	AD/P (%)		
	L	M	H
L	-0.77	-1.02	-0.54
M	-0.99	-0.99	-0.54
H	-1.21	-1.20	-0.56