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# VALUE CREATION IN DISTRESS RESOLUTION: MARKET IMPACT OF RESTRUCTURING ANNOUNCEMENTS IN CHINA

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## Abstract

We investigate the market impact of restructuring announcements made by distressed companies in China. Competition is new to the recently liberalized Chinese economy; inefficient firms fail, and the strong survive. This paper provides an analysis of successful restructuring mechanisms that are value enhancing and those that are not. We show that asset restructuring including mergers and acquisitions and asset sales are the two most popular strategies. Mergers and acquisitions are value enhancing for competitive firms that are not state owned and when cash payment is involved. Government's attempt to revamp SOE performance by transferring the controlling ownership, either with or without payment, is not value enhancing. Asset sales are not perceived positively by the market either. A potential explanation is that the lack of bankruptcy threat in China minimises the potential benefit of avoiding bankruptcy costs which shareholders otherwise have to bear. Our results also suggest that debt governance is not at work among SOEs and this affects the effectiveness of debt related restructuring. The fundamental conclusion is that government ownership has an adverse impact on the distress-resolution process as it distorts resource allocation, management incentives and investment decisions.

Key words: distress resolution; China; SOE; event study.

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# 1. INTRODUCTION

We study the distress resolution process in China by investigating the impact of restructuring announcements on firm value. Liberalisation and the introduction of competition are new to corporate China. One natural consequence of a competitive corporate environment is that the strong survive and the inefficient or non-viable firms fail. Firms that fail have to go through a distress resolution process. This paper identifies successful restructuring strategies that are value enhancing against the backdrop of government ownership and under-developed legal and financial systems. Data is hand collected from Chinese sources and this paper is the first to study distress resolution process in China following financial liberalisation and the establishment of Chinese stock exchanges.

We show that there are differences between state owned enterprises (SOE) and publicly held firms, or the so called non state owned enterprises (non-SOE). Successful re-structuring strategies for publicly held firms are not necessarily value enhancing for state owned firms. The main driver for shareholder wealth enhancement is either through new equity holders or through new debt injections as long as the firm is not state owned (non-SOE). For distressed non-SOE firms, that become targets market reacts positively to announcements of M&A with payment. On the contrary, the market reacts negatively to M&A announcements of SOE firms. A mere controlling ownership transfer of a distressed SOE firm, from one government agency to another is not perceived as an effective strategy for distress resolution while payment of cash for publicly held firms is perceived as effective and thus is value enhancing. Similarly, we find the market reacts positively to debt restructuring announcements made by non-SOE firms but indifferent to those made by the SOE firms. For publicly held companies, increase in free cash flows are perceived as an effective strategy for distress resolution while for state controlled companies it might indicate entrenchment and exploitation.

We classify restructuring announcements in China into four: mergers and acquisitions (M&A), asset sales, debt restructuring and managerial restructuring. Weston et al. (2001) classify both mergers & acquisitions (M&A) and asset sales in the asset restructuring category. Mergers and acquisitions take place when there is a change of the controlling

shareholder<sup>2</sup>. They argue that, in many respects, a merger is analogous to an asset sale of 100% of the company. To measure the effectiveness of merger in financial distress resolution, Clark & Ofek (1994) study 38 takeovers of distressed firms between 1981 and 1988. They classify 20 as failures, nine as marginally successful, and nine as clearly successful. They conclude that in the majority of cases takeovers do not successfully restructure a distressed target.

In the context of China, merger has been used extensively to resolve distress (WB 2000). The popularity of such strategy is partly motivated by the institutional features of China. Due to strict listing requirements, a listed company's access to the equity capital market acts as an attraction to potential buyers, who are in most cases non-listed firms<sup>3</sup>. When a listed company is in distress, acquisition provides an attractive solution for both the buyer and the seller; the buyer gains access to the organised stock exchanges and the target can avoid dissolution. Another pertinent feature of the Chinese M&A is that for SOEs, mergers can take place under the command of the government without payment involved, i.e., the former controlling shareholder, a government agency, simply transfers its holding to another government agency as the new controlling shareholder. Since the government has a very different motivation such as providing employment and maintaining social stability, we expect the market to react differently to the different types of M&A. We expect M&A with payment announcements to enhance shareholder wealth. The new owner being willing to pay a price for the distressed company is a positive signal to the market about company prospects. Transactions among state owned companies without payment involved merely changes the ownership of the distressed firm from one government agency to another, but do not bring in financial resources or know-how. With the government's motivation being maintaining political and social stability over profit maximisation, we do not expect M&A's without payment that take place between SOEs to be value enhancing.

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<sup>2</sup> In the case of China, the controlling shareholder, being the single largest shareholder, does not necessarily own over 50% equity. According to Clark (2003), probably the most common complaint about the current Company Law is that it gives too much power to controlling shareholders who do not necessarily own over 50% of the company's shares.

<sup>3</sup> See the Data section for further discussion.

Asset sales category includes the sale of tangible fixed assets, intangible assets and equity shareholding in another company which is usually non-tradable<sup>4</sup>. Existing empirical studies suggest asset sales is fairly commonly utilised by financially distressed firms and often lead to successful resolution of distress (Asquith et al 1994, Lasfer et al 1996, Lai & Sudarsanam 1997 and Kahl 2001). Lasfer et al (1996) argue that the main driver for shareholder wealth enhancement comes from distressed firms' asset sales generating sufficient cash to meet their debt obligations and avoiding bankruptcy. In general, the empirical evidence on the impact of paying down debt on shareholder wealth gains from asset sales is positive, albeit at differing magnitudes (Ofek 1993, Brown et al 1994, Lasfer et al 1996, Denis & Kruse 2000).

In the case of China, although there exists, formal insolvency and liquidation procedures, the process is rarely used and distressed and insolvent firms tend to be kept afloat (WB 2000, Garnaut et al. 2004, Kam et al 2005, Tian 2005, Allen et al 2005). Without the explicit threat of bankruptcy, the shareholders would not gain the benefit of avoiding bankruptcy costs by selling assets to avoid "bankruptcy". In addition, the circumstances for the urgent need to sell assets prevent these assets being sold at fair value (Weston et al 2001). As such we expect the market not to react positively to asset sales/swaps type of announcement.

Debt restructuring refers to a firm changing its debt structure by either increasing or decreasing firm leverage. Examples include interest forgiveness/deduction/extension, debt obligation transfer or taking on new debts, or debt-for-equity swaps. Increasing firm leverage by taking on debt not only provides the firm with tax shield, but also puts pressure on the firm for efficiency to meet debt obligations, in other words, debts provide positive disciplinary role (Jensen 1986, Wruck 1990). Studies on exchange offers provide empirical evidence to support this claim (Weston et al 2001).

Debt governance is not at work in China (Tian, 2004). Larger bank loans lead to higher free cash flow and significantly higher administrative expenditure in SOEs. In the case of non-SOEs, however, the relationship between bank debt and administrative expenditure is not

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<sup>4</sup> Distressed Chinese companies selling and transferring their minority shareholding of another company is documented in ADB (2000). Although this type of asset sales does not seem to be widely adopted by distressed firms elsewhere when they restructure, it is observed in the Netherlands (Frederikslust et al 2003).

significant. We expect the market to react negatively to leverage increasing announcements made by SOEs due to lack of debt governance. We expect positive market reaction to leverage increasing announcements by non-SOEs as they are publicly owned and competitive and debt will provide a disciplinary role for them.

Renegotiation<sup>5</sup> between debtors and creditors is also frequently observed in other studies (Asquith et al. 1994, Lai and Sudarsanam 1997). Naturally, the distressed firms' ability to renegotiate debt with their lenders is perceived as good news. In the context of soft budget constraints, one would expect that the SOEs have more power in their attempt to renegotiate with their banks than their non-SOE counterpart. Thus we expect that the market anticipates the likelihood/success of creditor renegotiations and reacts favourably to such announcements made by SOEs, but not necessarily positively to those made by non-SOEs.

Managerial restructuring includes senior management and board members voluntary and forced departure and new appointments. The issue of managerial restructuring as a response to performance decline has been studied extensively in the developed economies and the findings on forced managerial resignations are ambiguous. Earlier studies such as Werner et al. (1988) report negative reaction subsequent to forced turnover while more recent studies report positive reactions. Denis and Denis (1995) study 69 forced resignations and find that the dismissal of underperforming management is greeted with relief by the market. Dherment-Ferere and Renneboog (2002) recorded a 0.5% positive abnormal return over forced CEO departure in French companies, whereas voluntary resignations do not cause a price reaction. Negative market reaction in earlier studies is explained by an information effect whereby forced turnover may signal poor current and future performance which had not yet been uncovered or anticipated by the market. On the other hand, more recently, as informational asymmetries are reduced due to better regulation, forced turnover may signal possible change in poor performance.

In a socialist economy like China, good managers have little incentives to exert effort (Roland and Sekkat 2000). Also, according to Garnaut et al (2004), the main problem in the Chinese managerial system is that managers are rewarded for their success but not credibly punished

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<sup>5</sup> Note that this type of announcement does not necessarily change the firm's leverage level.

for their failures, other than by dismissal. In China, dismissal announcements might signal the unfavourable current and future performance of the domestically owned companies, while the signal could be a change in poor performance for foreign owned companies that are more transparent due to regulation in their home countries.

### 3 DATA

Our study focuses on the market impact of different methods of distress resolution. Data on distress resolution consist of restructuring announcements and is hand collected from the two official websites for listed companies' information disclosure<sup>6</sup>; [www.cnlist.com.cn](http://www.cnlist.com.cn) and [www.cninfo.com.cn](http://www.cninfo.com.cn). The classifications are made by the authors and this data set is unique. Accounting data used to define distress and share prices are collected from Thomson Financial Analytics Database. The primary data source for Thomson Financial Analytics Database for the Chinese listed companies is Compustat, and secondary sources include Worldscope and Extel.

We first identify firms in distress by employing an accounting measure, interest cover. It is measured as the ratio of earnings before interest, tax, depreciation and amortisation to interest expenses. Interest cover is a frequently employed distress measure in the literature (Asquith et al 1994; Weston et al 2001) and it is intended to directly measure the ability of a firm to cover its current financial obligations. A firm is identified as having suffered from financial distress if it meets one of the two criteria in at least two consecutive years during the research period. (a) The firm's earnings before interest, tax, depreciation, and amortisation (EBITDA) are less than its reported interest expense, i.e.,  $\text{interest cover} = (\text{EBITDA}/\text{interest expenses}) < 1$ ; (b). In the case when a firm's debt/interest expense=0, the firm's EBITDA is less than or equal to zero. Our sample consists of the 100 firms who have been in distress since the establishment of the Chinese stock exchanges<sup>7</sup>.

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<sup>6</sup> Appendix 1 presents the CSRC official "format of announcement requirement" on listed companies translated by one of the authors.

<sup>7</sup> For details of this sample see Kam et al (2005).

We identified a total of 479 announcements, made by our sample of firms in distress. Sixty two announcements were about updates and approvals and completions mainly for the M&A category<sup>8</sup>. A further 94 announcements were eliminated to avoid confounding measurement of price reaction and 20 were eliminated due to lack of share price data surrounding the announcement. Our sample consists of the remaining 303 initial announcements. All of these restructuring announcements are made in compliance with the Stock Exchanges' official announcement requirements in Chinese and thus had to be translated into English.

We classified restructuring announcements into four categories: Mergers and acquisitions, asset sales, debt restructuring and managerial restructuring. In all classifications we analysed SOEs and non-SOEs in different sub-groups. Asset sales are further classified into forced and voluntary asset sales subgroups. An asset sales announcement is classified into the forced asset sales subgroup if it explicitly states that the proceeds of the intended asset sales (or assets being auctioned under court order) are used to pay back debts due, and an asset sales announcement without the explicit mention of using proceeds to pay back debts due is classified into the voluntary asset sales subgroup. Debt restructuring is further classified into three; increasing leverage; debt renewals and debt renegotiation. The increasing leverage subgroup includes both announcements on taking new bank loans and on the firms' intention to take new bank loans; the renew debts subgroup includes announcements on these firms' bank debt renewal; the debt renegotiation subgroup includes announcements on details of the firms' renegotiations with their creditors on debt renewal, interest and/or principal forgiveness/reduction, or maturity extension. In all three subgroups, the bank loan due dates are either imminent or already overdue. Lastly, in the managerial restructuring category, there are three subgroups: resignation and appointments, termination and appointments and, appointments only. We also investigate the four announcements made by foreign owned firms separately.

Table 1 presents the breakdown of restructuring announcements<sup>9</sup>. Twenty-two percent of all announcements are related to mergers and acquisitions. Seventeen percent of these

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<sup>8</sup> These 62 announcements were processed separately. Results not reported here are not significant statistically indicating that they do not carry additional information content.

<sup>9</sup> Of the 303 announcements in our sample, 1% was made during  $t=-2$ , 15% were made during  $t=-1$ , 28% during the year of distress ( $t=0$ ), 29% during  $t=+$ , 23% during  $t=+2$ , and only 4% on  $t=+3$ .

announcements are M&A with payments and 5% are M&A without payments; Asset sales or swaps constitute forty percent of all announcements in our sample. Announcements about voluntary asset sales constitute 20% of our sample, announcements about forced asset sales constitute 8% of our sample and asset swap announcements constitute 12% of our sample. Debt related restructuring announcements represent seventeen percent of our sample. Of this 17%, 9% is due to increases in leverage of the firm, 3% is due to debt renewals and 5% is due to renegotiations with creditors. Managerial restructuring announcements make up 21% of our sample. Of this 21%, majority of announcements (13%) are about resignations and new appointments, while the remaining 8% are announcements about terminations and appointments (4%) and appointments only (4%).

*Insert Table 1 here*

## **4 METHODOLOGY**

We measure the market reactions to distressed firms' restructuring announcements using the event study methodology and employing the market model as the benchmark for expected returns<sup>10</sup>. One motivation for employing the market model benchmark is that, in general this model results in smaller variances of abnormal returns and produces smaller correlations across security abnormal returns giving closer conformity to standard statistical tests (Beaver, 1981). The steps to carry out the event study are described in detail below.

The implementation of the market model requires the definition of the event of interest, the event date, the event window or test period (TP), which is the period over which the returns will be examined and the estimation period for benchmark returns. The event day (t=0) is defined as the day when the firm announces its restructuring plan. However there might be information leakages before the announcement or drifts after the announcement in restructuring related events. In order to fully capture the information content of the

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<sup>10</sup> We also employ the market adjusted model where abnormal return  $AR_{jt} = (R_{jt} - R_{mt})$  for the estimations that follow. Conclusions do not change. Results not reported here are available from authors upon request.

announcements, following Lasfer et al. (1996), we use a wider event window of 81 days ( $t=-41, \dots, 0, \dots, +41$ ).

We employ daily log returns and an estimation window of 200 days ( $t=-241$  to  $-41$ ). The abnormal return for each security  $j$  on day  $t$  is given by equation (1):

$$AR_{jt} = R_{jt} - (\alpha_j + \beta_j R_{mt}) \quad (1)$$

Where  $R_{jt}$  is the realised return of security  $j$  on day  $t$ ;  $\alpha$  and  $\beta$  are coefficient estimates; and  $R_{mt}$  is the market return on day  $t$ . The cumulative abnormal return over the event window is given by:

$$CAR_j = \sum_{t=-40}^{+40} AR_{jt} \quad (2)$$

The cross-sectional average abnormal return (AAR) for all the companies within the group (e.g. same ownership, or a common announcement) is given by:

$$AAR_t = \frac{1}{N} \sum_{j=1}^N \varepsilon_{jt}, t = (-40, -39, \dots, +40) \quad (3)$$

Where  $N$  = number of companies.

The CAAR within the group:

$$CAAR_{TP} = \sum_{t=-40}^{+40} AAR_t \quad (4)$$

The significance tests of the CAAR will be carried out, using the following formulae:

$$CAAR_{TP} : t = \frac{CAAR_{TP}}{S(CAAR)} \approx N(0,1), \quad (5)$$

$$\text{where } S(CAAR) = \frac{S(AAR)}{\sqrt{T-s+1}} \quad (6)$$

$$S(AAR) = \sqrt{\frac{\sum_{t=-241}^{-41} (AAR_t - \frac{1}{T-s+2} \sum_{t=-241}^{-41} AAR_{jt})^2}{T-s+1}} \quad (7)$$

The t-test on AAR assumes implicitly that the mean effect of the event is identical across securities within the group (Strong 1992, p545) and that cross-sectional abnormal returns are independent. Considering the small sample properties and possible non-normal distribution of the abnormal returns, we also apply a nonparametric generalised sign test (Cowan 1992). The test examines if the number of stocks with positive abnormal returns exceeds the number expected in the absence of abnormal performance in the event window. The null hypothesis for the traditional sign test is that  $p=0.5$ . In the generalized sign test, the null hypothesis does not specify  $p$  as 0.5, but as the fraction of positive returns computed across stocks and across days in the parameter estimation period. The fraction of positive abnormal returns expected in the 200-day estimation window under the null hypothesis is:

$$\hat{\rho} = \frac{1}{n} \sum_{i=1}^N \frac{1}{200} \sum_{t=-240}^{-41} S_{it} \quad (8)$$

where  $S_{it} = 1$  if  $AR_{it} > 0$   
0 otherwise

The generalised sign test statistic uses the normal approximation to the binomial distribution (with parameter  $\rho$ ) and is defined as follows:

$$Z_G = \frac{w - n\hat{\rho}}{\sqrt{n\hat{\rho}(1-\hat{\rho})}} \quad (9)$$

where  $w$  is the number of stocks in the event window for which the (cumulative) average abnormal return ( $CAR_i$ ) is positive. The generalised sign test is more powerful than the rank test as the length of the event window increases and for highly volatile stock returns (Cowan 1992).

## 5 EMPIRICAL RESULTS

The results are presented in Table 2. Overall, the non-parametric sign test results are broadly consistent with the results of the parametric t-tests. Taken as a whole, the market reaction to announcements of M&A with payment, voluntary asset sales and asset swaps are positive on the day of the announcement. The analysis of the extended event window shows that there are considerable differences between the non-SOE and SOE firms. For non-SEO firms cumulative abnormal returns are positive for announcements related to mergers and

acquisitions with payments, and for increases in leverage. For these firms cumulative abnormal returns are negative for announcements of debt re-negotiations and resignations accompanied by new appointments. On the other hand, for SOEs, the only significant market reaction in the larger event window is for voluntary asset sales and that is negative.

*Insert Table 2 here*

## **5.1 M&A**

For the full sample, the market reacts positively to M&A with payment announcements on and around the announcement day;  $AAR_0$  is 1.3%. For the overall sample prices start picking up before the announcement and increase monotonically until the announcement of the M&A.  $CAAR_{-40, 0}$  is 9.4%. For the overall sample prices start falling after the M&A announcement and  $CAAR_{-40, +20}$  decreases to 6.9% and  $CAAR_{-40, +40}$  is not significantly different from zero. For the full sample the market reacts positively prior to and around the announcement day but CAARs decline post announcement day. The non-SOE and SOE subgroup analysis provides a different insight.

As we can see in Table 2 and Figure 1, the non-SOE subgroup has strong positive market reaction for M&A announcements throughout the event window. Prices start picking up before the announcement of M&A with payment and increase monotonically with  $CAAR_{-40, 0}$  being 10.5%. Cumulative abnormal returns remain stable after the announcement with  $CAAR_{-40, +20}$  being 11.7% and  $CAAR_{-40, +40}$  being 10%. This indicates that information about the M&A with payment leaks to the market before the official announcement and the positive reaction of the market leads to a permanent increase in the value of the firm in the range of 10%. On the other hand, for the SOE subgroup, although prices increase before the M&A with payment announcement with a  $CAAR_{-40, 0}$  of 8.9% and the reaction on the day of the event is also positive with  $AAR_0$  of 1.8%, this value increase is not stable. After the event cumulative average abnormal returns decline to zero in about two months.

*Insert Figure 1 here*

Determined by the nature of the transaction there were only SOEs in the M&A without payment category. As shown in Table 2 and Figure 2, we do not observe any significant market reaction to M&A without payment announcements before the event. The market reaction is slightly positive ( $AAR_0 = 1.1\%$ ) on the day of the event. However during the two months following the event value declines monotonically and  $CAAR_{-40, +40}$  becomes  $-9.7\%$ . Announcement of M&A's among the SOEs without any payment involved decreases firm value considerably.

*Insert Figure 2 here*

## **5.2 Asset sales and swaps**

As we can see in Table 2, there is no significant market reaction to the announcement of forced asset sales, but positive reaction to voluntary asset sales and asset swaps on the day of announcement.  $AAR_0$  is  $0.6\%$  for voluntary asset sales and  $1.2\%$  for asset swaps. Voluntary asset sales have a permanent effect on the market value of SOEs. As we can see from figure 3, the market reaction is negative over the event window. Cumulative abnormal returns decline monotonically with  $CAAR_{-40, +20}$  being  $-7\%$  and  $CAAR_{-40, +40}$  being  $8.5\%$  for the voluntary asset sales announcements of SOEs. Figure 4 shows that for forced asset sales although not statistically significant market reaction is negative over the event window. Figure 5 shows that market reactions to asset swaps announcements are not high in magnitude and they are not statistically significantly different from zero either.

*Insert Figures 3, 4 and 5 here*

A potential explanation for the negative market reaction to voluntary asset sales announcements of SOEs is that these assets might be sold below their intrinsic value. There might be informational asymmetries associated with SOEs asset valuations. Government ownership may be perceived by market participants as inferior to private ownership due to its political and social objectives taking priority over profit maximisation. This might hence create information asymmetries and higher transaction costs (Alchian 1977, Sappington and

Stiglitz 1987, Shapiro and Willig 1990, Boycko et al. 1996, Hart et al. 1997) and thus lead to a reduction in firm value.

### 5.3 Debt restructuring

As we can see in Table 2 and Figure 6, the market reacts positively to non-SOE firms' announcements of increasing their leverage levels as a debt restructuring strategy. The prices start picking up before the announcement hinting that information about negotiations leak to the market. During the two months before the event, prices increase such that  $CAAR_{-40, 0}$  becomes 10.7%. Prices continue to increase slightly after the announcement of the event and for the full event window  $CAAR_{-40, +40}$  is 12.1%. On the other hand, although the market reacts positively to the SOE subgroup's announcements of increasing leverage on the day of the announcement ( $AAR_0 = 0.6\%$ ), for the full event window cumulative average abnormal returns are not significantly different from zero. These results might be due to the fact that as indicated by Tian (2005), debt governance is not effective in SOE firms and institutional features matter. When a distressed firm is controlled by the government, the firm's attempt to restructure by increasing leverage is not perceived favourably by the market.

*Insert Figure 6 here*

For the debt renewal type of announcement, there is no significant market reaction. As for the debt renegotiation category, overall there is no announcement day effect. The market reacts negatively to announcements made by the non-SOEs firms. Prices start picking up before the event indicating that the news about renegotiations might leak to the market and reach a  $CAAR_{-40, +40}$  of -14.4%. For the full event window cumulative average abnormal returns for foreign ownership (FIE) firms is also negative but not significant, while that of state owned firms (SOE) are positive but not statistically significant. These results indicate that the distressed non-SOEs' intention to renegotiate with their creditors is perceived as bad news. This might be due to the market participants' not anticipating the negotiation to be concluded with a successful outcome. On the other hand, it might be due to the lending bias by the banks to SOE firms. Some state owned enterprises are bank affiliated and it might be easier for them to raise or renegotiate debt while, that might be more difficult for publicly

owned firms that do not have bank affiliation. Figure 7 shows graphs the CAARs for the three subgroups.

*Insert Figure 7 here*

## **5.4 Managerial restructuring**

Table 2 and figure 8 show that overall market reaction to managerial restructuring is negative except for those made by foreign owned firms. Prices start declining before the event indicating that the news might have leaked before the official announcement and publicly owned non-SOE's experience cumulative abnormal returns ( $CAAR_{-40, +40}$ ) of -11.9 % during the full event window for joint announcements of resignations and appointments. We do not observe any significant market reaction to announcements of other types of managerial restructuring including the joint announcements of terminations and appointments and announcements of appointments only. When we regroup all the managerial restructuring announcements by ownership type, into state owned (SOE), publicly owned (non-SOE) and foreign owned (FIE) subgroups, we observe that  $CAAR_{-40, +40}$  for the foreign owned companies (FIE) is positive (14.6%) while that of domestically but publicly owned companies (domestic non-SOE) is still negative (-10.6%).

The positive market reaction to managerial restructure announcements made by foreign invested companies might be due to the fact that managers in those companies may not be subject to the same domestic managerial pool that SOEs and non-SOEs are subject to. The domestic managerial pool in China might be one a where performance related action, for example, credible punishment such as dismissal or an incentive such as pay rise may be lacking. Thus managerial restructuring might not be perceived as one that can overturn poor performance. On the other hand, foreign owned firms might be overseeing their management more efficiently and that underperforming managers might be replaced to improve company

performance, and perhaps more quickly than they would be replaced in a domestic company<sup>11</sup>.

*Insert Figure 8 here*

## **6 CONCLUSION**

This paper is the first to study market reactions to distress resolution in China. This is an important issue for the recently liberalised Chinese economy, with the concept of competition and thus distress being new and corporate China as well as academics not being aware of successful mechanisms of distress resolution. We use a hand collected sample of announcements about several different types of restructuring and provide an analysis of market reactions to restructuring mechanism that are value enhancing as well as those that are not. We show that in this newly liberalised context, ownership structures matter. Value enhancing and value destroying mechanisms are different for publicly held versus state owned companies and for domestically owned versus foreign owned companies. New equity injections for targets of mergers and acquisitions and cash inflows through increased leverage are value enhancing for privately held companies (non-SOEs) while the values of state owned firms (SOEs) are indifferent for both forms of distress resolution. Debt renegotiations are value destroying for publicly held firms (non-SOEs) as they do not have direct access to bank loans while asset sales are value destroying for state owned firms (SOEs) as they might be sold below market values and proceeds may not be used effectively. Managerial restructuring is value enhancing for foreign owned firms (FIE) while it is value destroying for domestic companies that are publicly owned (non-SOE) and state owned companies' (SOE) values are indifferent to managerial restructuring to resolve distress.

In particular we examine market reactions to four main types of restructuring: asset restructuring including M&A and asset sales/swaps, debt and managerial restructuring. We find that asset restructuring is the most popular strategy in distress resolution as well as the most successful for publicly held firms. There are difficulties in officially liquidating

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<sup>11</sup> However this finding is based on only four events and should be treated with caution. To provide meaningful implications for the use of managerial restructuring strategies in the Chinese context, further research is needed when more data becomes available.

economically unviable firms in the Chinese context due to the lack of effective bankruptcy laws. Mergers and acquisitions that involve payment are perhaps the best way to resolve distress for the non-SOE firms that are subject to market mechanisms in a competitive corporate environment. M&A with payment strategy for publicly held target firms might signal the market that the distressed firm is of value to the new owner and that the new owner may be able to operate the firm as a viable going concern. The M&A with payment announcements made by the state owned firms do not create shareholder wealth. The M&A without payment announcements for state owned firms are value destroying. The government's attempts to revamp firm performance by transferring ownership, either with or without payment, are not perceived as effective by the market which might be due to the fact that government's primary motivation rests in providing employment rather than in profit or shareholder wealth maximisation.

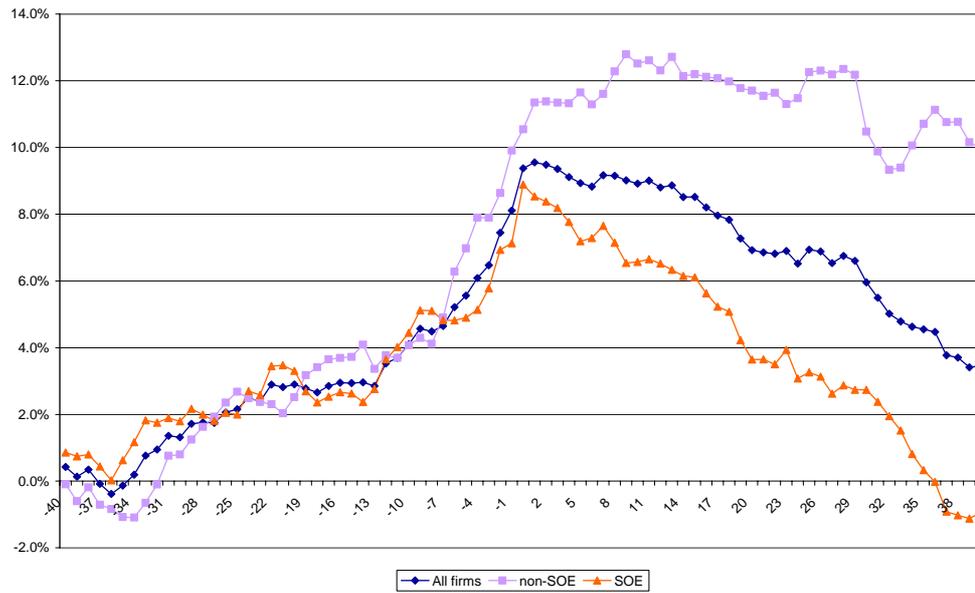
Market participants are indifferent to announcements of asset sales for distress resolution. The only exception is the case of voluntary asset sales by state owned firms which is value destroying. The lack of bankruptcy threat in China cuts back the potential benefit of asset sales through which the firm generates cash flows that could help avoid bankruptcy. In addition, the negative market reaction to voluntary asset sales announcements made by SOE firms might be due to information asymmetries associated with SOEs' asset valuations, and assets being sold below their intrinsic value. Market participants might be perceiving government ownership to be inferior to public ownership in the sense that government motivation in restructuring might be political or employment related rather than profit or shareholder wealth maximising.

Debt restructuring does not have a significant effect on the value of state owned firms. Debt governance is not effective in state owned firms and this reflects on market reactions. Value impact of various types of debt restructuring announcements is different for publicly owned firms. The market reacts positively to non-SOE firms' announcements of increasing leverage, and negatively to non-SOEs' attempts to renegotiate their debt contracts with their banks. There might be a lending bias by the Chinese banks towards SOEs. Therefore market participants may not be anticipating the negotiations that publicly held firms are going through with banks to be concluded with a successful outcome.

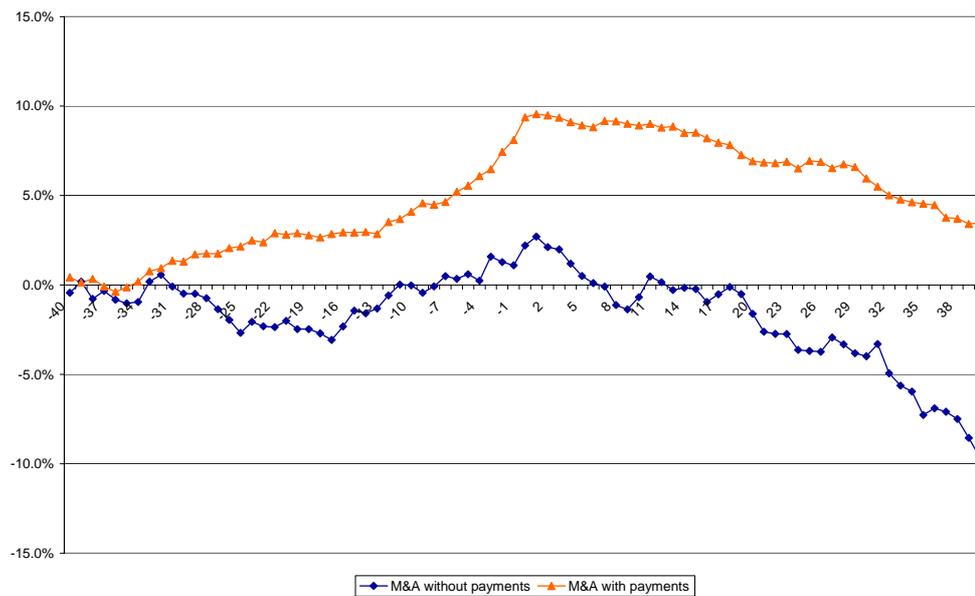
Finally, managerial restructuring is not seen by the market as an effective restructuring strategy for state owned firms. Market reaction is significant for publicly owned firms but is different for different ownership structures. Markets react positively to managerial restructuring announcements made by foreign owned companies and negatively to those made by domestically owned companies. In China might performance related action, such as dismissal or pay rise is not common. Thus managerial restructuring might not be perceived as one that can overturn poor performance for domestically owned companies. On the other hand, foreign owned firms might be overseeing their management more efficiently and using performance related action more efficiently.

Our findings provide the first insights about the value effective restructuring strategies for distress resolution in China. Liberalisation and privatisation has now become orthodox economic policy through much of the world. Survival of the fittest is new to most of those markets. Companies are now subject to a new competitive environment, have redefined objectives and management incentives. We identify successful restructuring strategies as those that are value enhancing. These happen to be strategies that raise new funds through either equity or debt for publicly owned firms that are open to competition. State ownership is not value enhancing.

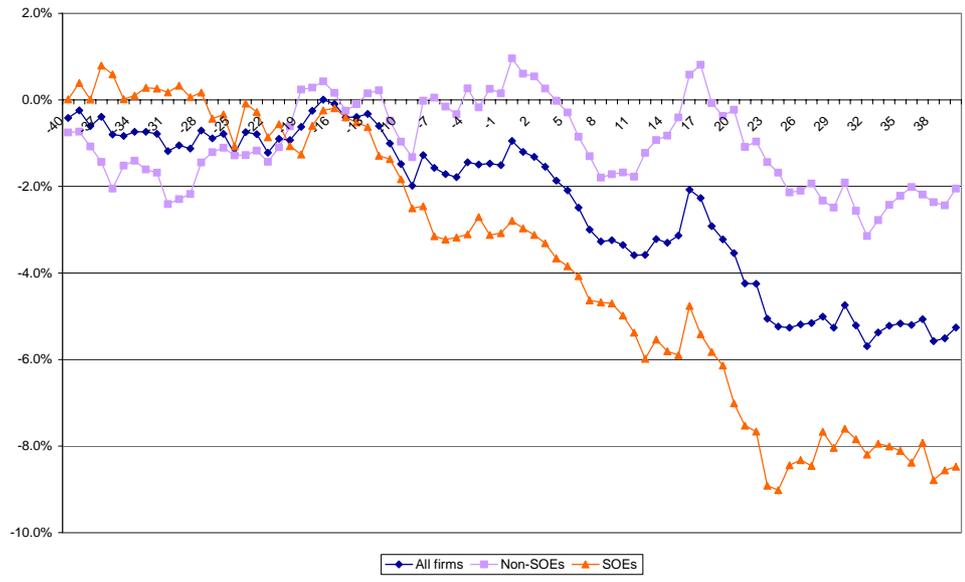
**Figure 1** Cumulative average abnormal returns for the M&A with payments



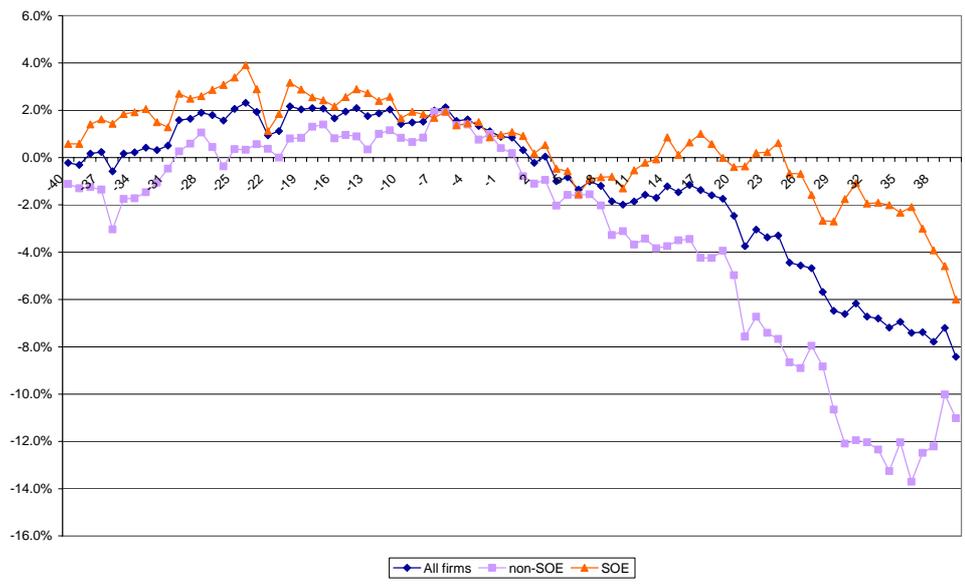
**Figure 2** Cumulative average abnormal returns for M&A with and without payments



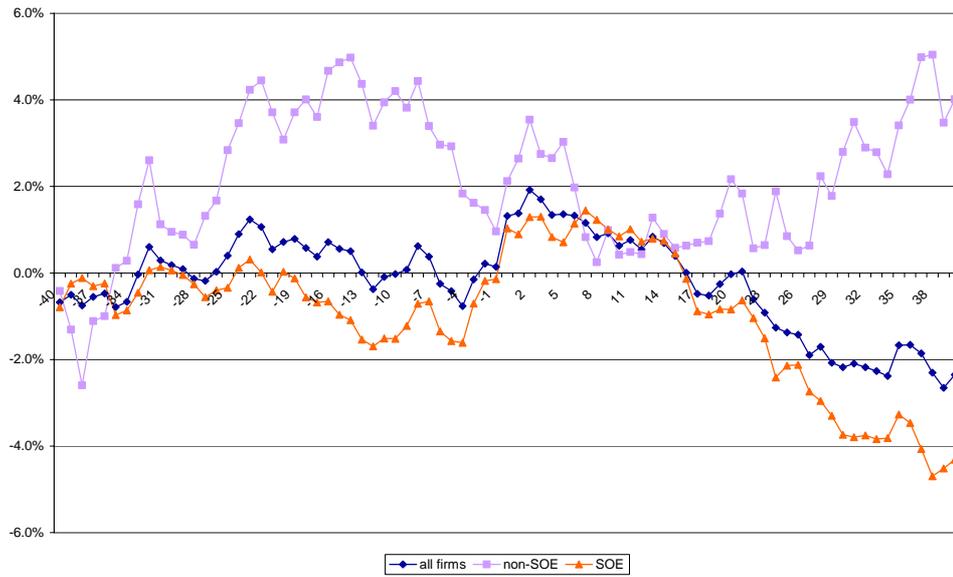
**Figure 3** Cumulative average abnormal returns for voluntary asset sales



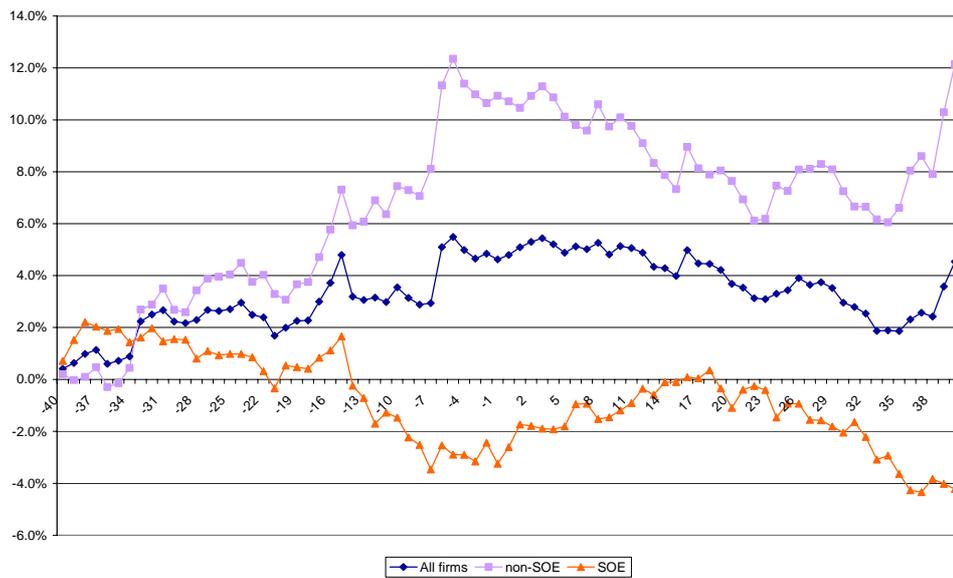
**Figure 4** Cumulative average abnormal returns for forced asset sales



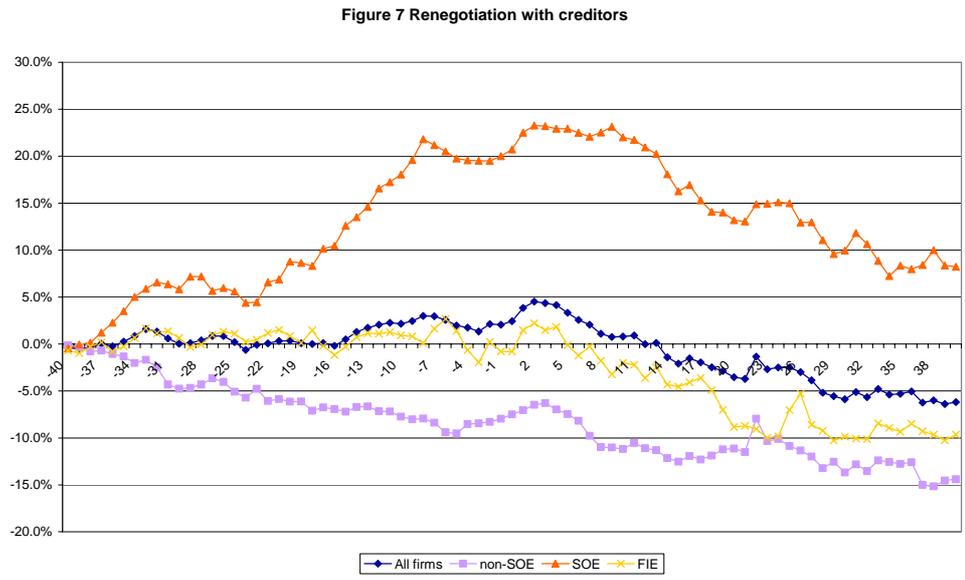
**Figure 5 Cumulative average abnormal returns for asset swaps**



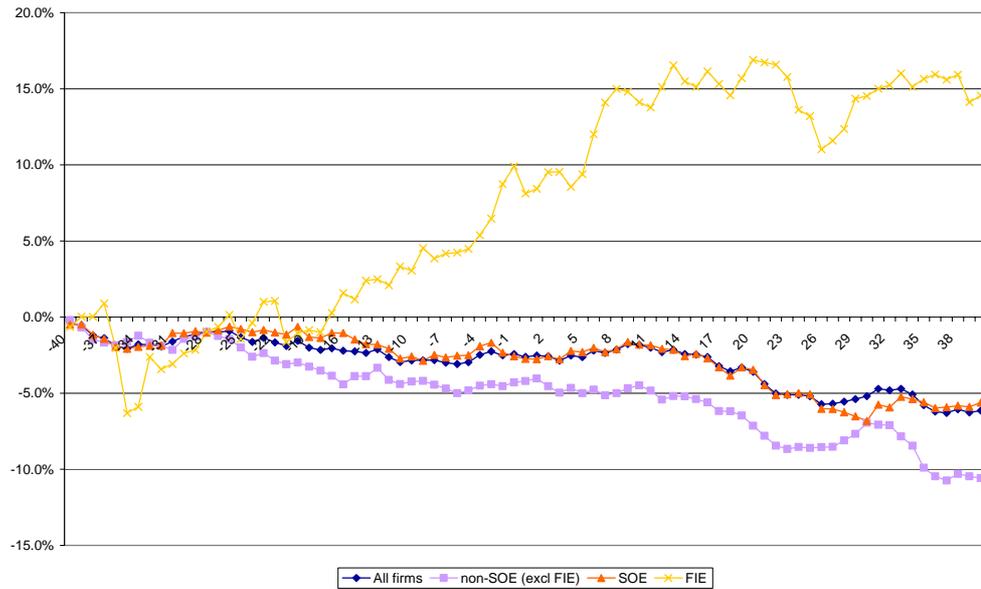
**Figure 6 Cumulative average abnormal returns for increasing leverage**



**Figure 7 Cumulative average abnormal returns for debt renegotiation**



**Figure 8 Cumulative average abnormal returns for managerial restructuring**



**Table 1 Properties of the Sample**

This table presents the 303 announcements by restructuring type and ownership. Column 1 presents the type of restructuring announcements made by firms in distress. Column 2 presents ownership type; Column 3 presents the total number of announcements for different restructuring categories and percentages to full sample are given in Column 4. Ownership type includes foreign invested enterprises (FIE), publicly held firms(non-SOE) and state owned (SOE) firms.

<b>Announcement type</b>	<b>Ownership</b>	<b>Number of Firms</b>	<b>% of full sample</b>
<b>1. Asset Restructuring</b>			
<b>1.1 M&amp;A</b>			
M&A with payments	Non-SEO	22	
	SOE	30	
Subtotal		52	<b>17%</b>
M&A without payments	SOE	16	
Subtotal		16	<b>5%</b>
<b>1.2 Asset sales/swaps</b>			
Asset sales	Non-SEO	30	
	SOE	29	
Subtotal		59	<b>20%</b>
Forced asset sales	FIE	1	
	Non-SEO	10	
	SOE	12	
Subtotal		23	<b>8%</b>
Asset swaps	Non-SEO	10	
	SOE	26	
Subtotal		36	<b>12%</b>
Debt related – increasing Leverage	Non-SEO	15	
	SOE	12	
Subtotal		27	<b>9%</b>
Debt related - renew debts	Non-SEO	8	
	SOE	2	
Subtotal		10	<b>3%</b>
Debt related - renegotiation with creditors	FIE	5	
	Non-SEO	7	
	SOE	4	
Subtotal		16	<b>5%</b>
Resignation/appointments	FIE	1	
	Non-SEO	18	
	SOE	21	
Subtotal		40	<b>13%</b>
Termination/appointments	FIE	2	
	Non-SEO	6	
	SOE	3	
Subtotal		11	<b>4%</b>
Appointments only	FIE	1	
	Non-SEO	4	
	SOE	8	
Subtotal		13	<b>4%</b>
Grand Total		303	<b>100%</b>

**Table 2 Market reactions to restructuring announcements**

This table presents the average abnormal returns on event day (AAR) and cumulative average abnormal returns (CAAR) for different holding periods as defined in equations 1 and 4 respectively for different restructuring categories. Column 1 gives the types of restructuring and the sub-sample by ownership type; Column 2 provides the number of observations in each category; Columns 3 -7 present the cumulative average abnormal returns for different holding periods and Column 8 presents the average abnormal returns on the event day.

Asset restructuring	N	CAAR <sub>(-40,-40)</sub>	CAAR <sub>(-40,-20)</sub>	CAAR <sub>(-40,0)</sub>	CAAR <sub>(-40,+20)</sub>	CAAR <sub>(-40,+40)</sub>	AAR <sub>0</sub>
<b>M&amp;A</b>							
<b>M&amp;A with payment</b>							
Full sample	52	0.4%	<b>2.9%</b> ** b	<b>9.4%</b> *** a	<b>6.9%</b> *** b	3.5%	<b>1.3%</b> *** b
non-SOE	22	-0.1%	2.5%	<b>10.5%</b> *** a	<b>11.7%</b> *** b	<b>10.0%</b> **	0.6%
SOE	30	<b>0.9%</b> **	3.3% *	<b>8.9%</b> *** a	3.6%	-0.9%	<b>1.8%</b> *** b
<b>M&amp;A without payment</b>							
Full sample (SOE only)	16	-0.4%	-2.5%	2.2%	-1.6%	-9.7% *	1.1% *
<b>Asset sales</b>							
<b>Voluntary asset sales</b>							
Full sample	59	-0.4%	-0.9%	-0.9%	-4.2% *	-5.3% *	<b>0.6%</b> * b
non-SOE	30	-0.8% *	-0.6%	1.0%	-0.2%	-2.0%	<b>0.8%</b> * b
SOE	29	0.0%	-1.1%	-2.8%	<b>-7.0%</b> **	<b>-8.5%</b> ** b	0.3%
<b>Forced asset sales</b>							
Full sample	23	-0.2%	2.2%	0.8%	-2.5%	-8.4% *	0.0%
non-SOE	12	0.6%	3.2%	1.1%	-0.4%	-6.0%	0.1%
SOE	11	-1.1% *	0.8%	0.2%	-5.0%	-11.0%	-0.2%
<b>Asset swaps</b>							
Full sample	36	<b>-0.7%</b> b	0.7%	1.3%	0.0%	-2.4%	<b>1.2%</b> *** b
non-SOE	10	<b>-0.4%</b> b	3.1%	2.1%	2.2%	4.0%	1.2% *
SOE	26	-0.8%	0.0%	1.0%	-0.8%	-4.3%	<b>1.2%</b> *** b
<b>Debt restructuring</b>							
<b>Increasing leverage</b>							
Full sample	27	0.4%	2.0%	4.8% *	3.7%	4.5%	0.2%
non-SOE	15	0.2%	3.1%	<b>10.7%</b> ***	7.6% *	<b>12.1%</b> ***	-0.2%
SOE	12	0.7%	0.5%	-2.6% *	-1.1%	-4.2%	<b>0.6%</b> b
<b>Renew debts</b>							
Full sample	10	-0.7%	0.3%	-0.2%	-2.3%	-0.3%	0.4%
<b>Debt renegotiation</b>							
Full sample	16	-0.4%	0.4%	2.4%	-3.5%	-6.2%	0.4%
non-SOE	7	-0.1%	-6.1%	-7.5%	-11.1%	<b>-14.4%</b> **	0.5%
SOE	4	-0.5%	8.8%	20.7%	13.2%	8.2%	0.7%
FIE	5	-0.7%	0.9%	-0.8%	-8.9%	-9.7%	0.0%
<b>Managerial restructuring</b>							
<b>Resignation/appointments</b>							
Full sample	40	<b>-0.5%</b> * b	-1.6%	-2.6%	-4.0%	<b>-7.4%</b> **	-0.1%
non-SOE	19	<b>-0.5%</b> b	-2.6%	-4.0%	-7.3% *	<b>-11.9%</b> **	0.2%
SOE	21	<b>-0.6%</b> b	-1.0%	-2.0%	-2.3%	-5.1%	-0.3%
<b>Termination/appointments</b>							
Full sample	11	-0.3%	-1.8%	-2.2%	-1.3%	-6.4%	-0.5%
<b>Appointments only</b>							
Full sample	13	0.1%	-1.3%	-3.6%	-4.8%	-2.6%	-0.2%
<b>All managerial related</b>							
non-SOE	28	-0.2%	-3.0% *	-4.2% *	<b>-7.1%</b> **	<b>-10.6%</b> ***	0.1%
SOE	32	<b>-0.5%</b> b	-0.6%	-2.7%	-3.5%	-5.6% *	-0.2%
FIE	4	-0.7%	-1.1%	8.1%	<b>16.9%</b> * b	<b>14.6%</b> b	-1.8% *

\* Significant at the 10% level in the t-test

\*\* Significant at the 5% level in the t-test

\*\*\* Significant at the 1% level in the t-test

b Significant at the 5% level in the generalised sign test

a Significant at the 1% level in the generalised sign test

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