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FINANCIAL DISTRESS RESOLUTION IN CHINA: A CASE STUDY APPROACH

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Abstract
This paper uses a case study approach to examine two financially distressed companies and their resolution strategies in China. Liberalization of Financial markets and financial distress are new to China. The main advantage of the case study approach is that it provides information rich in-depth analysis of complex events which large-scale empirical studies tend to ignore. Since there is no prior work on the distress resolution strategies in China, it is most appropriate to use the case study approach. It helps us provide a deep understanding of unique features in China, such as the role of government and other more commercially driven shareholders, and the subsequent importance of social policy issues; protracted and complex nature of the restructurings; and the frequent use of mergers, asset swaps and asset sales. We also analyze the stock market responses to the announcements of the restructuring strategies and changes in accounting information. We offer a broad understanding of how the firms cope with distress in a recently liberalized financial market like China where distress itself is a very recent phenomenon. We also provide new hypotheses for further empirical study on a large scale basis.

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1. INTRODUCTION

This paper uses a case study approach to examine two financially distressed companies and their resolution strategies in China. Liberalization of Financial markets and financial distress are new to China. The main advantage of the case study approach is that it provides information rich in-depth analysis of complex events which large-scale empirical studies tend to ignore. Since there is no prior work on the distress resolution strategies in China, it is most appropriate to use the case study approach. It helps us provide a deep understanding of unique features in China, such as the role of government and other more commercially driven shareholders, and the subsequent importance of social policy issues; protracted and complex nature of the restructurings; and the frequent use of mergers, asset swaps and asset sales. We also analyze the stock market responses to the announcements of the restructuring strategies and changes in accounting information. We offer a broad understanding of how the firms cope with distress in a recently liberalized financial market like China where distress itself is a very recent phenomenon. We also provide new hypotheses for further empirical study on a large scale basis.

Case study methodology has been used in finance research literature before (Ruback 1983, DeAngelo et al. 2002, Baldwin and Mason 1983). Case studies are commonly used to answer the how and why questions. Liberalisation in China is new. Financial markets have been established during early 1990s. The first cases of distress have been observed during mid 1990s. We do not have the basic understanding of how companies cope with distress in this recently liberalised economy where companies are now facing competition and thus are prone to failure. The case study methodology allows us to explore the distress resolution process in the Chinese institutional context while retaining a holistic approach and providing an in-depth analysis of the characteristics of different distress resolution methods that can be employed.

The cases are chosen on the basis of the richness of the information content in terms of distress resolution strategies. The first case, Shandong Jintai is a publicly owned pharmaceutical company

operating in a growing and liberalised industry consisting of 60 listed firms; the second case, Sichuan Joint-WIT Medical, on the other hand, is a state owned enterprise (SOE) in the State controlled clothing and fabric industry consisting of four other SOEs listed in the stock exchange. These two companies are representatives of a typical dispersed ownership versus a state controlled ownership structures respectively. Therefore they provide insights on how a commercially competitive company versus a state owned enterprise cope with distress and the role of government in distress resolution. Both companies provide an information rich context on the use of various different distress resolution strategies including mergers and acquisitions (M&A), and several types of asset sales and asset swaps, as well as various debt restructuring and managerial restructuring attempts.

A variety of financial and non-financial restructuring strategies have been studied extensively in the framework of developed countries including the US, UK , Germany, Japan and France[2]. In the Shandong Jintai and Sichuan Joint-WIT cases, four well-documented restructuring strategies are observed: asset restructuring including M&A and asset sales and swaps; managerial restructuring including changes of board members, CEOs and general managers; debt restructuring of various different kinds; operations restructuring. Equity restructuring such as spin-offs, equity carve-outs, tracking stock, and split-ups are not observed. Because the two Chinese stock exchanges impose strict rules on firms wishing to issue further equity, it is very difficult even for profitable firms to issue additional equity, let alone the distressed ones[3].

The government's role in distress resolution is highlighted by the Sichuan Joint-WIT case and by some interesting comparisons between the two cases. Firstly, M&A is observed in both companies. However in the Sichuan Joint-WIT SOE case, M&A without payment, i.e. State shares change hand from one SOE shareholder to another SOE shareholder is also observed. Failing to turnaround its corporate performance, the company then announced an intended M&A with payment transaction. Event study results show the market reacts negatively to the initial M&A without payment announcements but strongly favorably to the then M&A with payment announcement. Note this intended SOE's M&A with payment transaction would entail the

[2] See Gilson et al 1990, Clark & Ofek 1994, Asquith et al 1994, Franks & Sussman 2000, Franks & Sanzhar 2003, Lai & Sudarsanam 1997, Furtado & Rozeff 1987, Denis & Denis 1995, Dherment-Ferere & Renneboog 2002

[3] For a full discussion on rights issue, please see Chen & Yuan (2001).

privatisation of State shares. However, in the Shandong Jintai (non-SOE) case, the market's reaction to its announced M&A with payment strategy was somewhat indifferent. The event study results were positive but not statistically significant. In other words, for this company which is already a commercial company without substantial State shares, the takeover is not perceived favourably by the market as a turnaround strategy.

Also, in the second case of Sichuan Joint-WIT with government controlling shareholding structure, managerial disciplinary event is not frequently observed (there is only one managerial restructuring announcement following the M&A with payment announcement), despite the company's continued performance deterioration. On the contrary, in the Shandong Jintai case, as a distressed commercial company, I observe frequent announcements of departures (both forced and voluntary) of senior management, although market's reaction to this type of announcement at the aggregate level is negative. This negative result is not consistent with evidence from developed economies (Dennis and Dennis 1995; Dherment-Ferere and Renneboog 2002). One possible explanation is that this type of announcement sends a hybrid signal to the market. Firstly, Roland and Sekkat (2000) argue that in a socialist economy, due to asymmetric information on managerial skills, good managers have little incentive to out-perform others. Following this line of argument, the act of replacing incumbent management does not bring about the desired result – better performance. Secondly, the announcement signals to the market the unfavourable current and future performance of the company. Future investigation using large scale data could provide confirmation on this topic.

Furthermore, overly large labour force also seems to be associated with the government controlled company. The evidence highlights the importance of employment issue on the government agenda.

Many observed restructuring strategies in the two cases discussed above do not have immediate cash flow generating implications which are different to what is observed in developed economies (Asquith et al. 1994; Lai and Sudarsanam 1997). This finding suggests the Chinese firms do not face the threat of bankruptcy. In the Shandong Jintai case, although the company was effectively insolvent (negative equity) in the second year of distress, it was still kept afloat. The maintenance of inefficient going-concerns means resources are not efficiently (re)allocated.

Furthermore, during the first year of its distress, the first case, Shandong Jintai's management still had the time to experiment with new operating strategies in such adverse circumstances and this further demonstrates the lack of threat from bankruptcy and liquidation. The management was able to conduct such experiment by selling assets and using the proceeds to invest in other activities, rather than either meeting overdue debt payments or payout to shareholders.

The two subject companies frequently employ mergers and asset sales in their effort to restructure. Given that the nature of distress in China is predominantly economic as documented in Kam et al. (2005), this is perhaps not a surprising result. As a result of the difficulties in officially liquidating economically unviable firms in the Chinese context due to the lack of effective bankruptcy laws, these observed mergers and asset sales are perhaps a beneficial outcome in terms of improved use of resources. Using US data, Kahl (2001) also argue that M&A are used in re-allocating assets to more efficient uses and that although Chapter 11 tends to maintain inefficient going concerns, these distressed firms are not tolerated for long by the market. In addition, Weston et al. (2001) argue that divestitures perform vital economic functions by moving resources from less valued uses to higher valued uses and therefore contribute to the resource mobility essential to the effective operation of an enterprise economy.

Some may question why the two firms frequently employ the unpopular strategy of selling assets if there is no explicit bankruptcy threat. Our findings suggest that in both cases, the proceeds of asset sales are indeed not associated with meeting overdue debt obligations, rather, they are likely to be associated with providing much needed liquidity for working capital requirements and/or with enabling the management to experiment with new operational strategies.

We also observe a small number of debt related restructuring announcements in the Shandong Jintai case. In this case the distressed debtor renew or attempt to renew existing or obtain further loans. This is different to the existing literature which document more active creditor participation[4] in strategies such as debt for equity swaps, debt forgiveness and write-downs. This is perhaps not so surprising given the lack of creditor protection in the existing formal bankruptcy process. In addition, event study results show that the market reacts negatively to the company's

[4] There is possible bias in this statement as we only examined announcements made by the company.

announcements on renewing or increasing leverage. This is contrary to the debt governance theory advocated by Jensen (1986) and Wruck (1990). There are two potential explanations for our results. Firstly, as argued by Tian (2004), increased leverage may increase management entrenchment and perks, and debt governance is not at work in the Chinese institutional context. Secondly, the distressed firm' attempt to renew existing or obtain further debts may signal to the market its poor performance.

Lastly, our robustness tests show that the results are not sensitive to the choice of models. In general we obtain economically significant abnormal returns and cumulative abnormal returns. These results differ depending on the width of the event window. This is an important issue especially for large-scale studies.

The paper is organized as follows. Section 2 discusses the institutional features of China; section 3 describes our data source and the event study methodology; section 4 presents our case study analyses; section 5 investigates how these two firms stay alive despite their prolonged losses; section 6 summarises the results and concludes.

2. THE INSTITUTIONAL BACKGROUND

China is the most important emerging market and is in the process of financial liberalisation from a closed economy to a market oriented and an integrated economy. This section discusses the role of banks as a main source of finance for listed companies; role of the stock exchanges and the continuing role of government in the economy. In addition, we also briefly discuss the key features of the existing bankruptcy laws and their role in firm distress resolution.

2.1 Bank lending

Due to historical reasons, banks are the main channel of funds from savers to borrowers. According to Tian (2004) and Allen et al. (2004), China is a bank economy. The Chinese financial landscape is dominated by "the big four" state owed banks: Industrial & Commercial Bank of China (ICBC), Bank of China (BoC), Construction Bank of China (CCBC) and

Agricultural Bank of China (ABC), and they are highly inefficient[5]. There was also significant government intervention in bank lending prior to 1994. Such government intervention could take place either ex ante or ex post of bank lending being made (Lu et al 2001). Since 1994, the Chinese State banks have been granted increasing autonomy in their lending decision-making. Despite this evidence suggest that the banks' lending decisions are systematically biased in favour of SOEs (Lu et al 2001).

2.2 Role of stock exchanges and the government in the corporate sector

China's privatisation process in the past two decades has dramatically transformed the structure of its corporate ownership. In particular, China's share issue privatisation (SIP) of SOEs was a catalyst for the development of its two stock exchanges - Shanghai Securities Exchange (SHSE) and Shenzhen Stock Exchange (SZSE) in 1990 and 1991 respectively. At the outset the stock exchanges were used primarily to supply capital to SOEs. By 2003, the total market capitalisation of the two stock exchanges was 43.5% of GDP. Together the two stock exchangeswere ranked as the 12th largest in the world. Despite its rapid growth, in 2000 total capital raised in stock markets accounted for the equivalent of only 15.8 % of new bank lending over the whole economy in the same year, and total market capitalisation of stocks was 48.4% of the total loans outstanding in China (McKinsey 2003). In addition, Tian (2004) documents that listed companies' total liabilities are 43% of total assets, and bank loans are approximately 22% of total assets.

Although Chinese publicly listed companies (PLC) are organised and operated under the model of modern western firms, their shareholding structures are different from those of western firms in order to allow for continued state control of these listed firms. In other words, one of the main characteristics of Chinese listed companies is that the State remains in control of many former wholly State owned enterprises[6], despite they're being listed on a stock exchange. Therefore the

[5] The cost/income ratio of mainland Chinese banks is among the highest in the world, averaging close to 80%, versus 35-45% in Asia and 40-55% internationally (Bank of China International 2002).

[6] Strictly speaking, a SOE is a wholly State Owned Enterprise (100%). Here we loosely address all State controlled enterprises (i.e. State holds less than 100% shares) as SOEs. By construct, all listed SOEs have less than 100% State shares due to at lease a portion of the shares are listed and held by individuals and institutions. In addition, if a SOE has over 50% State shares, they are under the absolute control of the State; if the State only

Chinese government has keen interest and critical role in the process and issues of China's transition from a planned economy to a market-orientated economy. Underpinning the social contract is the belief that the state would continue to look after the welfare of the individual. The government now has to delicately balance the often-antagonistic tensions of rapid economic reform and sustaining social stability.

Share ownership is officially classified as state, legal-person[7], employee, and tradable A share plus shares denominated in a foreign currency (B-shares and H-shares). All the common shares bear the same rights for voting and cash flow. However, state, legal-person, and employee shares are not tradable on the markets. As at 2001, the total number of listed companies is 1160. Of the total shares outstanding, 46.2% were state owned shares and 36.6% were tradable shares.

Due to the popularity of the capital equity market as a source of funding for the Chinese firms, the two stock exchanges impose strict listing requirements on company size and profitability, and there are even stricter rules on firms wishing to issue further equity, as a result it is very difficult even for profitable firms to issue additional equity, let alone the distressed ones. In addition, according to the Company Law (Article 157 & 158), The PLCs which have been making losses (negative net profit) for two consecutive years are categorized as "special treatment" (ST) and are limited to 5% share-price movements up or down daily; whereas PLCs that have been making losses for three consecutive years are to be put into "Particular Treatment" (PT) status and are suspended from the Exchange. These PT firms are given a maximum of one-year grace period to return to profitability, failing that they will be de-listed from the Stock Exchange. This feature need to be taken into consideration when design our event study methodology.

2.2.1 Information disclosure and restructuring methods

There are two official websites for listed companies' information disclosure: www.cnlist.com.cn and www.cninfo.com.cn. Appendix 1 presents the CSRC official "format of announcement requirement" on listed companies translated by the authors. Below lists the main restructuring types that are required to be disclosed as listed in the document:

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holds below 50% shares but is the largest shareholder, the enterprise is under the relative control of the State and is also classified as SOE. For a thorough discussion on the difference between relative and absolute control by the State, see Kam et al (2005) and Clarke (2003).

[7] For a thorough discussion of the different types of shares, refer to (Tian 2004).

- M&A, i.e. there is a change of the controlling shareholder. In the literature this sometimes is classified under asset sales (Weston et al 2001). The controlling shareholder, being the single largest shareholder, does not necessarily own over 50% equity[8]. Within this category, there are two types of mergers: with and without payment. The without payment type of merger is when the former government controlling shareholder simply transfers its holding to another government shareholder.

  Two points are important for the understanding of the Chinese M&A process. Firstly, as discussed in section 2.2, shares are classified into tradable and non-tradable shares both bearing the same rights for voting and cash flow, with the non-tradable shares not floated in the market but still transferable with the approval of CSRC. An acquisition usually involves the transfer of non-tradable shares, at a price agreed upon by both parties. Such transfer can also be arranged without any payment[9] from the existing SOE holding company to the new holding SOE company. These two types of M&A present an opportunity for us to study the role of the government in the restructuring process.

  Secondly, because of the strict listing requirements, the listed company's access to the capital equity market acts as an attraction to potential buyers, which are in most cases non-listed firms. Therefore when a listed company is in distress, acquisition provides an attractive solution for both the buyer and the seller.

- Asset sales, swap or purchase. Asset includes tangible fixed asset, intangible asset and minority equity shareholding in another company (usually non-tradable). To restructure by selling, transferring or purchasing equity shareholding in another company is rarely observed in other countries in the literature. Asset swap is when the distressed company swaps its assets (fixed asset or equity shareholding), for assets from another company which is often either the distressed company's major or controlling shareholder(s) or another company

[8] 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. See also footnote 4.

owned by the same controlling shareholder as the distressed company. The difference between the agreed value of the assets being swapped is settled, often with cash (or is recorded as accounts payable/receivables between the two companies)

- Debt restructuring including swaps, interest forgiveness/deduction/extension, debt obligation transfer and taking on new debts.

- Managerial restructuring, i.e. there is a change of senior management such as board chairman, directors, CEO, managing director and general managers.

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

2.3 Bankruptcy law

Finally, the Chinese Bankruptcy Law was initially promulgated to restructure or liquidate insolvent SOEs. As China began to move towards a more market driven economy additional bankruptcy[10] legislation was enacted. Similar to many other countries, when a company is in distress, there are two possible routes for distress resolution: 1. Private workouts; 2. Bankruptcy process during which the company may be restructured under court supervision or liquidated[11]. However, despite the existence of a legal procedure for the restructuring and/or liquidation of corporations, this process is seldom used[12]. According to the World Bank (2000), at the time of

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[9] Note that "without payment" should not be confused with "payment terms". Here the contrast between M&A with payment and without payment is entirely different to the usual one found in the M&A literature comparing M& with different payment terms such as cash versus share exchange.

[10] The term "Bankruptcy" follows the US definition and refers to the corporate bankruptcy process of court supervised restructuring or liquidation, and is used interchangeably with "insolvency" in this study.

[11] A comparison of the main features of the Chinese bankruptcy laws with that of eight countries is attached as Appendix 2.

[12] According to Tian (2004), Huarong Asset Management Company and other two creditors requested in 2001, that Monkey King PLC to be liquidated. This is expected to be the first bankruptcy case of a public listed company in China.

that study there had been no known cases of in-court restructuring in China[13]. The inefficiency of the bankruptcy laws, coupled with the pressure for the government to maintain social stability, contribute toward keeping non-viable and bankrupt firms alive.

3. DATA AND METHODOLOGY

3.1 The case companies

The two distress cases were selected from the 100 companies that constitute the full population of distressed companies listed in China studied in Kam et al (2005). The definition of distress is as follows: a firm is classified as distressed if the firm's earnings before interests, tax, depreciation, and amortisation (EBITDA) are less than its reported interest expense. This definition is also consistent with Asquith et al (1994), Kahl (2001), and Rajan & Zingale (1995). Further criteria for selection included a comparison of two firms with government and non-government controlling shareholders and a significant number of announcements.

Data for the two cases' operating performance and capital structure are collected from Thomson Financial Analytics Database. From the same database, industry performance controls, capital structure, and size comparisons are also collected by matching the sample firms' principal four-digit code with other public firms with the same principal SIC code for the same year. Shandong Jintai and Sichuan Joint WIT's accounts-based performance summaries are presented in Table 1 and 3, respectively.

The two distressed companies' restructuring announcements were obtained from the two Chinese stock exchanges' official websites. Appendix 1 presents the CSRC official 'format of announcement requirement' for listed companies (this has been translated by one of the authors). Details of the announcements are presented chronologically in Appendix 3 and 4 respectively. Further data for the case analyses are obtained from the companies' annual reports and from news articles published on the stock exchanges' official websites.

[13] As pointed out by George Nast, principal consultant at McKinsey&Co China, in a communication with the authors, this situation is not unique to China. Distress resolution tends to be informal in many emerging markets and distressed firms tend to be kept alive much longer (the so called soft budget constraint syndrome (Kornai 1980)).

Next, we explain the steps by which the event study analyses are carried out. We also define our choice of the test dimensions. Issues in measuring abnormal returns and problems concerning estimation and test statistics will also be discussed.

3.2 Event study steps

Step 1: The benchmark of abnormal return – the expected return

We use the market model as the benchmark for risk adjusted expected returns. The model is expressed as follows:

$$R_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_{jt} \qquad (1)$$

Where ε_{jt} is a mean zero, independent disturbance term in period t, β_j is the beta, i.e. the sensitivity of return j to the market movements, α_j measures the mean return over the period not explained by the market, and R_{mt} is the return on the respective stock exchange all shares index for the period t. This equation partitions R_{jt} into a systematic component linearly related to R_{mt} and an unsystematic component ε_{jt}, which is uncorrelated with R_{mt}. The effect of the restructuring announcements is meant to be fully captured in this unsystematic component, ε_{jt}, and the assumption being that the information signal and R_{mt} are independent. The market adjusted model specifies α_j =0 and β_j =1. This is based on the assumption that, because alpha equals zero in the long run and betas vary over time, their estimation will be inaccurate to base around a model of expected returns, though they will eventually converge to unity. We employ the market adjusted model to calculated expected returns as our robustness checks.

Step 2: Estimation Period (EP) and Test Period (TP)

The implementation of the two models requires the definition of the event of interest, the event day, the event window or test period (TP), which is the period over which the returns will be examined and the estimation period (EP) for benchmark returns. The event day (t=0) is defined as

the day when the firm announces its restructuring event as recorded on the official stock exchange website. However there might be information leakages before the announcement or drifts after the announcement in restructuring related events and therefore we use a wider event window of eleven days (t=-5,..0,..+5). I also report results using event windows of 2 days (t=0, +1) and 5 days (t=-2, 0, +2).

EP needs to be specified to estimate the benchmark expected return, i.e. the alpha and beta in equation (3) for the market model, and subsequent t-tests for both the market model and the market adjusted model. In the literature, multiple events are considered within a single return generating process. In both the Shandong Jintai and Sichuan Joint-WIT case, we select a single non-restructuring related announcement period for all events, consistent with most researchers such as Mikkelson and Ruback (1985); each event is then compared to the same forecast model, i.e. the market model.

In the Shandong Jintai case, since the company became distressed in Year 2002 and the first restructuring related announcement is on 17th December 2001, we define the estimation period as the first 95 days[14] since listing (23/07/01 – 30/11/01). There are 89 daily observations in this estimation period. Using the market model we calculate the standard error of the ε_{jt} in equation (3) to be 0.0302.

In the Sichuan Joint-WIT case, since the company became distressed in Year 2001 and the first restructuring related announcement was made on 30th December 2000, we define the estimation period as 21/03/2000-25/12/2000. There are 200 daily observations in this estimation period. Similarly, using the market model we calculate the standard error of the ε_{jt} in equation (3) to be 0.0171.

Step 3: The calculation of abnormal returns and cumulative abnormal returns

Daily returns are used and the calculation is given by:

[14] We also repeat all analysis excluding the first 5 days of listing in the Shandong Jintai case and find the results identical.

$$R_{jt} = \ln(P_{jt}) - \ln(P_{jt-1}) \qquad (2)$$

Where P_{jt} and P_{jt-1} are the closing price of security j at the end of day t and t-1 respectively.

Market return is calculated as follows:

$$R_{mt} = \ln(I_t) - \ln(I_{t-1}) \qquad (3)$$

Where I_t and I_{t-1} are the market index levels at the end of day t and t-1 respectively.

For the market adjusted model, the expected return is the market return hence the abnormal return AR_{jt} equals ($R_{jt} - R_{mt}$).

Cumulative Abnormal returns (CAR) are calculated as follows:

$$CAR_j = \sum_{t \in TP} AR_{jt} \qquad (4)$$

For the market model, before expected returns of each security during TP can be estimated, the security's alpha and beta will be estimated by performing an OLS regression using security returns during EP. Therefore the abnormal return for each security is given by equation (3) and calculated as follows:

$$AR_{jt} = R_{jt} - (\alpha_j + \beta_j R_{mt}) \qquad (5)$$

CARs are used to fully capture the effect of an event on share prices, and to accommodate uncertainty over the exact date of the event (Strong 1992). Also, this takes care of the issue of price movement cap for 'ST' firms discussed in section 2.2. In this paper, CAR(0, +1) or CAR_2 denote the accumulation of abnormal returns over a two days window (t=0, +1); CAR(-2, +2) or CAR_5 denote that of a 5 days window (t=-2, …0, …+2); and CAR(-5, +5) or CAR_{11} denote that of a 11 days window (t=-5, …0, …+5).

The significance tests of the AR will be carried out, using equation 6 below:

$$AR_t : t = \frac{\varepsilon_{t \in TP}}{S(AR)} \approx N(0,1), \qquad (6)$$

$$\text{where } S(AR) = \sqrt{\frac{\sum_{t \in EP} (\varepsilon_t - \frac{1}{T-s+2} \sum_{t \in EP} \varepsilon_t)^2}{T-s+1}} \qquad (7)$$

The significance tests of the CAR will be carried out, using equation 8 below:

$$CAR_{TP} : t = \frac{\sum_{t \in TP} \varepsilon_{jt}}{S(CAR)} \approx N(0,1), \qquad (8)$$

$$\text{where } \mathrm{S(CAR)} = \frac{\mathrm{S(AR)}}{\sqrt{T - s + 1}} \qquad (9)$$

Step 4: Average abnormal returns (AAR) and cumulative average abnormal returns (CAAR)

AARs are calculated to measure the average impact of a distress resolution category with multiple events that have been announced in multiple dates. The calculation is as follows:

$$AAR_t = \frac{1}{N} \sum_{j=1}^{N} \varepsilon_{jt}, t \in TP \qquad (10)$$

Where N = number of announcements relating to the same distress resolution category.

Similarly, CAAR are calculated by accumulating AARs over an event window:

$$CAAR_{TP} = \sum_{t \in TP} AAR_t \qquad (11)$$

The significance tests of the AAR and CAAR will be carried out, using equations (12) and (14) below respectively.

$$AAR_t : t = \frac{\frac{1}{N} \sum_{j}^{N} \varepsilon_{jt}}{S(AAR)} \approx N(0,1), \qquad (12)$$

$$\text{where } S(AAR) = \sqrt{\frac{\sum_{t \in EP} (AAR_t - \frac{1}{T - s + 2} \sum_{t \in EP} AAR_{jt})^2}{T - s + 1}} \qquad (13)$$

$$CAAR_{TP} : t = \frac{CAAR_{TP}}{S(CAAR)} \approx N(0,1), \qquad (14)$$

$$\text{where } S(CAAR) = \frac{S(AAR)}{\sqrt{T - s + 1}} \qquad (15)$$

4. CASE STUDIES

4.1 CASE 1: SHANDONG JINTAI GROUP

Shandong Jintai (Jintai hereafter) was formerly a state owned enterprise and was restructured to be a shareholding company in 1989. The group's principal activities are the research, manufacture and sale of chemical raw material medicines, chemical medicinal preparations, Chinese medicinal preparations and biological medicines. It is also engaged in the wholesale and retail of Chinese and Western prepared medicines. Other activities include manufacturing and marketing of biological products, medical intermediates and medical apparatus, importing and exporting goods, developing and transferring technologies and providing technical services.

The pharmaceutical industry is a high growth industry in China. As at 2003, there are a total of 60 listed companies within the industry. According to China Economic Information Network (CEINet), a leading industry studies expert, the pharmaceutical industry enjoyed a growth of 15.5% from 2001 to 2002, with RMB94.55bn output in 2002. In addition, as we can see in Table 1 below, the industry's median asset size grew over time from RMB608mn in 1999 to RMB1391mn in 2003.

Using our definition of distress discussed in section 3.1, between 1999 and 2003, five of the 60 firms were in distress in the sector, including Jintai. Of the five distressed companies, two are non-SOEs, and three are SOEs. Jintai is a non-SOE firm with zero government shareholding. It is also a small company measured by total assets.

Jintai started its application for listing in 1993 and was eventually floated on the Shanghai Stock Exchange, eight years later, on 23rd July 2001. This lengthy process is mainly a result of bureaucracy and the extreme demand outstripping supply (Jiang et al. 2005). Consistent with other IPOs, I record a cumulative equally weighted market adjusted return of 8.7% by the 6th day, then the share price started to slide down on the 7th day and the cumulative market adjusted return

on the 10th day was -3.6%. This can be seen in Figure 2 which will be discussed further in section 4.1.2.

4.1.1 Accounts-based performance

Table 1 shows some key accounting information of the company between 1999 and 2003. 2002 is the first year company suffered interest cover shortfall (t=0). In terms of company size measured by total book assets, prior to its distress in 2002, Jintai's total assets between 1999 and 2001 were approximately 50-60% of industry median, and therefore was a relatively small company. Jintai's 2002 year-end book value assets were RMB316mn, representing a decrease of 30% from 2001. In 2003, there was another decrease of 24% and the company's total assets were only 17% of industry median. In other words, while the industry's median firm level total assets increased year on year, Jintai's total assets adjusted by industry median decreased in the same period, and such decrease accelerated in 2001.

As there was no information on such asset decrease from the company's announcements via the Stock Exchange during relevant period, we look into the company's annual reports. According to the company's 2002 annual report, the 2001-2002 asset reduction was the result of unrealisable accounts receivables written-offs, stock revaluation, and readjustments of existing projects. There were no major asset sales. The 2003[15] annual report stated there were also no major asset sales during the reporting period and that part of the 24% asset reduction was the result of two court orders (received on 30/09/03 and 04/11/03) for the repayments of overdue debts of a total of RMB9.1mn to two suppliers; and two notifications (25/11/03 and 15/12/03) from the court that the company were sued for the total amount of RMB33.3mn as overdue payments, of which RMB26.29 to the Industrial and Commercial Bank of China (ICBC), and the rest to a third supplier. The total amount involved in the four lawsuits was RMB42.4mn, explaining only part of the total reduction of RMB75.28mn.

Furthermore, Jintai's equity decreased from RMB181.85mn in 1999, to a negative RMB31.72mn in 2003. Its total liabilities to total assets ratio increased from 52% in 1999 to over 110% in 2003, due to the large written offs of its bad accounts receivables and non-performing assets. According to an article published on the official Stock Exchange website (www.cnlist.com.cn) on

10 November 2004, since Xin Hong Ji Group's takeover of Jintai, the company was sued over 100 times for defaults on debt payments.

Insert Table 1 here

In fact, around the time of listing in 2001, it had come to light[16] that the company was starting to become exposed to a variety of issues, such as high level of bank debts; obsolete technology due to a lack of investment over the years and management devoting considerable amount of efforts in its listing application; and only about 10% potentially realisable accounts receivables of a total of RMB100mn. Table 1 shows accounts receivables (days) increased sharply from 82 days in 2001 to 305 days in 2002 and again to 350 days in 2003

The company also suffered a sharp decrease in sales in 2002. Table 1 shows its sales/assets ratio decreased from 0.40 in 2001 to 0.09 in 2002. According to its 2002 annual report, the company discontinued the operation of one of its major subsidiaries because of liquidity constraints on working capital. The sharp drop in sales (RMB171.4mn in 2001 to RMB28.0mn in 2002) suggests it discontinued 80% of its operations. As the pharmaceutical industry was being liberalised, companies faced increased competition, and pressure on pricing. As part of the company's restructuring strategy, it sold the fixed assets of the discontinued subsidiary in return for a 20% shareholding of a newly formed company. In effect, Jintai's main assets were sold to the other company. This was announced on 24th May 2002 as shown in Appendix 3.

All in all, the company's 2001 accounts show the company performed poorly relative to industry in all aspects. Table 1 also shows that the company's operating and financial performance continued to deteriorate from 2002 to 2003. Its 2003 sales/assets ratio was only half of that in 2002. Although its EBITDA/assets ratio improved slightly from -0.37 in 2002 to -0.25 in 2003 due to the sharp decline in total book value assets. Its gross profit margins improved from 0.12 in 2002 to 0.26 in 2003 but its operating profit margin deteriorated from -0.04 to -0.058. In

[15] The company's 2004 annual reports states that the 3.64% book value asset decrease between 2003-04 was due to assets been forfeited to pay off due debts (mainly bank debts).
[16] According to articles published on the official stock exchange website.

addition, its bank debts/total assets continued to increase and in 2003, its total liabilities exceeded its total assets in 2003. The company was in effect bankrupt although was kept alive.

The company employed a number of restructuring strategies since 2002, such as operational and managerial restructuring, these measures seem to have a longer term strategic nature without immediate cash flow generating implications (unlike some of the UK distressed firms studied in Lai and Sudarsanam 1997). One possible explanation is that, due to the absence of an effective bankruptcy law, distressed firms are not worried about being liquidated when they default on loans. Below we use event study to gain an understanding of market reactions to the company's announcements, paying particular attention to restructuring related news.

4.1.2 Event study on restructuring strategies of Shandong Jintai

Six months after its listing, the company announced on 17th December 2001 that the existing controlling shareholder was selling its holding of 26.99% to Xin Hong Ji Group. The company had a dispersed shareholding structure and the second largest shareholder held only 7.13%. Therefore although Xin Hong Ji Group only bought 26.99% shares in Jintai, it became *de facto* the controlling shareholder. Xin Hong Ji Group agreed to pay RMB52mn for this transaction. RMB30mn was paid first. However before the remaining RMB22mn was paid, the auditor of Xin Hong Ji Group discovered that Jintai was facing severe financial problems (according to an article published on www.cninfo.com dated 15th April 2003). At the time of the transaction, there was no legal requirement for either Jintai or Xin Hong Ji Group to disclose the details of the transaction. It is still unknown as to why such a major transaction was agreed upon without proper auditing beforehand. Whether the remaining RMB22mn was paid or not was not announced.

For 2001-2003, Figure 2 reports Jintai's raw (unadjusted) stock return, and its raw return minus the contemporaneous return on the equally weighted SE All A-shares Index, i.e. the market adjusted model described above. Figure 2 shows that Jintai's performance went through four distinct phases. Firstly the 10-day IPO phase, as discussed previously, the stock outperformed the market in the first six days. However on day t=10 its cumulative market adjusted return slide to a negative 3%. The second phase starts from post IPO until end 2001, during this short period the stock performance experienced large fluctuations. The third phase starts from end 2001 to

May 2002 during which time the company's market adjusted return approximated zero overall. On 17th December 2001, the company announced the intended sell-off by its then controlling shareholder, to its new controlling shareholder, Xin Hong Ji Group (see Appendix 3). The third phase starts from end 2001 to May 2002. On 17th December 2001, the company announced the intended sell-off by its then controlling shareholder, to its later new controlling shareholder, Xin Hong Ji Group (see Appendix 3). The company's stock performance fluctuated negatively. In the fourth phase starting May 2002 when the company announced the discontinuation of one of its main operations, its stock performance started a persistent decline all the way through to the end of 2003. Such decline accelerated following the announced warning of major operating loss on 18 February 2003, and then again in October 2003 when the company started to receive court orders and lawsuits regarding its defaults on banks loans and other creditors.

Insert Figure 2 here

Appendix 3 lists a total of 36 announcements made by the company in compliance with the Stock Exchange requirements on information release of public listed companies, between 2001 and 2003. Among the 36 announcements, four relate to M&A announcement and updates; two relate to asset sales and operational restructuring; three to managerial restructuring; and four to new bank loan or bank loan renewal. Also, there are seven multiple announcements relating to changes of senior management, M&A completion, share suspension from the stock exchange and 'ST' status, loan renewal and court order of due payments. In addition, there are 17 announcements relate to the release of company annual/quarter reports, announcements of shareholders' meeting, etc. We will not examine these 17 announcements as they are beyond the focus of this paper. We will also ignore the seven multiple announcements as we cannot isolate one event form the other. We will focus on the remaining 12 announcements which are categorised into four different types of restructuring strategies as described in section 2.

An interesting point to note is that most of the company's announcements on asset sales are accompanied by some form of operational restructuring and new investment. On 20/12/01, the company announced the selling of one of its production lines and at the same time the setup of a joint venture with the buyer; again on 24/05/02, the company announced its intention to use the fixed assets of its subsidiary to setup a joint venture with one of its business partner companies;

with the same company. These transactions were carried out against the backdrop of deteriorating financial and operating performance such as falling sales, increased bank debts and falling interest cover, as discussed in detail in section 4.1.1. It seems that despite several liquidity constraints and a mounting debt level, the management was still able to experiment with new operating strategies. This provides evidence for the lack of a bankruptcy threat to the firm.

For the 12 announcements, we firstly calculate the associated stock price changes. Column 5 in Appendix 3 shows the stock's unadjusted daily return (log return), Column 6 shows the market return on the same day, Column 7 presents the company's daily value gain/loss by multiplying the stock's market adjusted return by the total number of tradable shares[17].

The market has reacted negatively to the announcement of the takeover of the company by Xin Hong Ji Group on 17th December 2001. The recorded total value loss was RMB29.17mn. The aggregate equity value gain as the result of all M&A related announcements is a positive RMB5.43mn. The market however seems to have reacted negatively, at the aggregate level, to the company's announcements on its disposal and acquisition of fixed assets. On 24th May 2002, when the company announced its sell-off of one of its main operations, the market reacted negatively with a value loss of RMB16.28mn. In addition, the market also reacted negatively to managerial restructuring announcements. On 7th January 2002, when the company announced some major changes to its senior management team following the takeover, the company's excess return was a negative 9.13% and its equity value plunged a record RMB92.26mn. However one month later, when the company announced the appointments of new board members on 8th February and 4th March 2002, the market reacted favourably with a daily equity value gain of RMB39.34mn. The aggregate effect from managerial related announcements is a loss of RMB44.78mn.

During the second half of 2002, the company carried out a number of operational and debt related strategies and managerial disciplinary events. The market's reaction in aggregate is negative. This negative result suggests that the market anticipates that these restructuring measures would be unsuccessful in reversing the company's performance. As discussed in section 4.1.1, the

[17] Assuming the price of the non-tradable shares unchanged.

company's operating performance continued to deteriorate in 2003. The aggregate equity change related to the company's announcements on debt related restructuring is –RMB4.06mn.

However, the results in equity value gain/loss do not take into account market-wide movements. In order to adjust for market-wide movements and focus on the component of the returns that is due to the different types of the 12 announcements, we employ the event study methodology as defined in section 3.2, the results are reported in Columns 8-11 of Appendix 3. Column 8 presents the abnormal return on the day of announcement AR_0; Column 9 presents the two days cumulative abnormal return CAR(0, +1); Columns 10 and 11 presents CAR(-2, +2) and CAR(-5, +5), respectively. Furthermore, we calculate the average abnormal returns and the cumulative average abnormal returns using the four different categories and the results are reported in Table 2[18]. Among the four debt-related restructuring announcements, two events took place on two consecutive days, to avoid confounding effects, only the first one is included in the calculation of average abnormal returns and cumulative average abnormal returns. In addition, Table 2 is used to present the event study results for the 12 announcements in a summarised form, and is not intended to generalise the results for each restructuring category.

Jensen (1986) and Wruck (1990) argue that debt provides positive disciplinary role. As discussed in section 4.3.1, using exchange offer announcements, empirical studies suggest that the market reacts favourably to companies when they increase leverage. However, Tian (2004) documents in China, increased leverage increase management entrenchment and perks and he believes that debt governance is not at work in China. As we can see in Table 2, our event study results on increasing leverage announcements are negative. Table 2 also shows that the aggregate equity value gain/loss associated with M&A is positive but with each of the other three types of announcements is negative.

Table 2 shows that none of the average abnormal return on the day of announcement (AAR_0) for the four types of restructuring announcements is statistically significant. Only managerial restructuring announcements have an economically significant AAR_0 of –2.91%. The signs of

[18] As a robustness check, consistent with the literature, such as Krivin et al. (2003), we exclude the first 5 returns from the estimation period to eliminate any stock price reaction immediately following the IPO and the results are identical. In addition, we repeat the analysis using the market adjusted model and also find the results to be similar.

11-day cumulative average abnormal returns ($CAAR_{+/-5}$) are consistent with AAR_0, with the most economically significant $CAAR_{+/-5}$ being –2.62% for asset sales. According to the signs of $CAAR_{+/-5}$, the market reacted negatively to all four types of announcements. However different event windows produce results of opposite signs, except for managerial restructuring announcements. Neither the cumulative average abnormal returns nor the AAR_0 are significant statistically.

Insert Table 2 here

4.2 CASE STUDY TWO: SICHUAN JOINT-WIT MEDICAL

Sichuan Joint-Wit Medical and Pharmaceutical Industry Company Limited Formerly known as Sichuan No. 1 Textile Stock Company Limited. It was a SOE with 65.6% State shares. It was listed on 16 June 1998 at the Shenzhen Stock Exchange. The Group's principal activities were the manufacture and sale of yarn, thread, base cloth, dyed cloth, knitwear, garments, beddings, adornments, machinery equipment, apparatus, meters and spare parts. Other activities include import and export trade, purchase of raw cotton and manuacture of chemical fibre yarn. Major products of the Group are cotton cloth and cotton yarn. The textile industry included five listed companies, all under the control of the State. In addition, there is a large number of non-listed non State-owned small to medium size companies within the industry. The industry has been growing rapidly and the increased production and sales was a manifestation of brisk consumer spending and growing exports. As Table 3 shows, among the five listed companies, the median industry book value assets increased year-on-year from RMB608mn in 1999 to RMB1.19bn in 2003. Sichuan Joint-WIT was the smallest listed company in the industry in 1999.

4.2.1 Accounts-based performance

Table 3 shows the company suffered interest cover shortfall in year 2001 and 2002. The company's book value assets were relatively stable prior to and during the first year of coverage shortfall. However, its book value assets more than halved from RMB451mn in 2001 (t=0) to RMB189mn in 2003 (t=+2). In terms of operating performance, the company's EBITDA/assets ratio was similar to industry median prior to distress, but became negative in 2001 and 2002. The main cause of distress is operational as shown by the negative EBITDA in 2001. The company's financial structure did not look bad – its debts/assets ratio was actually low, so its negative

interest cover was due to poor operating performance but not to excessively high interest payments. This underlines the problems of operational inefficiency in SOEs. In 2003, the company's EBITDA/assets recovered to the industry median level. However, its sales/assets ratio outperformed the industry 2000-03[19].

Insert Table 3 here

In terms of financial performance, the company's leverage was similar to industry median, although it had higher accounts payable/assets and accounts payable/sales ratios. Its liquidity ratio of 1.101 was less than half of that of industry median in 1999, two years prior to the onset of distress, the ratio dropped to 0.546 in 2000 which was less than a third of that of industry median in the same year. Similarly, its capital expenditure/assets ratio was very poor compared to industry prior to distress. Two year prior to the onset of distress, its capital expenditure scaled by assets was only 3% of that of the industry median. The percentage improved slightly in 2002-03.

Low debts/assets ratio, high accounts payable/assets and accounts payable/sales ratio, and very low capital expenditure/assets ratio suggest that although the company was not highly leveraged, it relied on trade credits for liquidity and its liquidity was poor. Poor liquidity restricted the company making adequate capital expenditure investments. The main cause of distress was operational and this underlines the problems of operational inefficiency in SOEs.

The company's sales/employees ratio and the total number of employees show the company had a relatively large workforce and extremely low sales per employee ratio, indicating its inefficiency, even compared to other SOEs in the same industry. Assets/employee ratios were also low. Employee numbers continued to grow substantially in the first year of distress despite the falls in both assets and sales. The total number of employees was over 6560 in 2002, this figure then dropped to only 709 in 2003. The company's announcements in 2003 confirmed such large-scale redundancy. As Appendix 5 shows, the 27/08/2003 announcement mentioned the total compensation involved in redundancy was in the region of RMB13bn. This dramatic drop

[19] Its sales/assets ratio in 2003 was very strange, 140%. Reason being that the company signed agreement to buy 81% holding of a pharmaceutical company on 19th August 2003and the transaction was completed on 31st Dec 2003 (p32 of 2003AR), and this subsidiary's accounts was incorporated in Sichuan Joint-WIT's 2003 annual report.

in headcount is the consequence of the company's exit strategy of the labour-intensive textile industry. As I will discuss further in the next section, in 2001, during the first year of distress, the government attempted a number of restructuring strategies including transferring State shares from an asset management SOE to a textile SOE who supposedly had industry-specific expertise management; and operational restructuring; but in vein. In December 2002 the company had to discontinue operations due to deteriorating cash flow problems. Eventually, the company had to lay off its extremely large labour force which seems to be the source of inefficiency, and initiated its exit of the textile industry in 2003.

4.2.2 Event study on restructuring strategies of Sichuan Joint-WIT

Similarly we construct Figure 3 to report the company's raw (unadjusted) stock return, and its raw return minus the contemporaneous return on the equally weighted SH All A-shares Index. We also collected 22 announcements made by the company between 2000 and 2003 and these are presented in Appendix 4. Although in 2003 the company's interest cover was back to a healthy 9.2 times and is higher than the industry median of 8.6 times, we include it in our analysis as during this year, the company started to go through a complex strategic asset restructuring process. It attempted to exit the textile industry by selling its core textile related assets, at the same time acquiring a pharmaceutical company.

Among the 22 announcements, four relate to M&A without payments; two relate to M&A with payment (one related to the cancellation of the intended M&A with payment announcement); four to asset sales and operations restructuring; one to debt restructuring (debt transfer), one to managerial restructuring, and 10 to the announcements of company quarterly performance reports; of "ST"; suspension and re-listing of the share; and the local municipal government's involvement in employee settlement and redundancy. These 10 announcements are beyond the scope of the study hence are not covered in the event study. In addition, among the 12 restructuring related announcements, five events took place either during the period when the company share price was capped (due to "ST" status) or suspended, and therefore we are only able to carry out event study on seven events. The event study results of the seven announcements are presented in Columns 8-11 in Appendix 4.

Figure 3 shows the company's stock performance went through 3 phases. The first phase runs from Sichuan Joint-WIT's IPO in June 1998 to early 2000, one year prior to the onset its coverage shortfall. During this phase the stock was fluctuating around zero cumulative return. The market adjusted cumulative return shows that for majority of the time during this phase, the stock performed below the market. The second phase starts from March 2000 through to end 2001. During this phase the stock was performing more closely with the general market movements. The third phase starts from March 2001 to September 2003 during which time the cumulative market adjusted returns started to depart negatively from zero. Between 28/08/03 and 19/12/03, the stock was suspended from the exchange due to continued deterioration of profitability. The stock continued to plunge from the first day it was back on the stock exchange on 23/12/03 to the end of 2003. Major announcements were plotted on the graph. As we can see the controlling shareholder's attempted transfer of its holding to a textile SOE ended in an immediate continuation of poor stock performance, although this transfer was later cancelled. Also, the company's two purchases of stock (raw material) from related companies led to significant negative returns, suggesting the market is negative regarding this SOE firm's operational investment decisions and is suspicious of transactions with related companies leading to potential "tunnelling behaviour". The announcement on 28/01/2003 of Chendu Municipal government's involvement in the company's relocation and employee settlements resulted in a significant AR_0 of 5.26%, a CAR_{+1} of 7.20% both significant at the 1% level, and a $CAR_{+/-2}$ of 8.77% significant at the 10% level. Although following the company's temporary out performance, its stock performance continued to further slide.

Insert Figure 3 here

AR_0 for two of the M&A without payment announcements in 2001 was not significant either economically or statistically, but was positive. However AR_0 for the follow-up announcement in 2002 was negative. The average abnormal return of the three announcements on day 0 is positive but again not statistically or economically significant, and its $CAAR_{10}$ is –2.25%. On average the market reacted negatively to M&A without payment announcements. The average abnormal returns and cumulative average abnormal returns of event study results for the seven announcements are summarised in Table 4. Similar to Table 2, Table 4 is intended to present the

event study results for the seven announcements in a summarised form, and is not intended to generalise the results for each restructuring category.

Insert Table 4 here

Although there were four asset sales and operations restructuring related announcements, three announcements took place during the share's suspension period or when the share price movement was capped. So table 4 shows the one announced on 30th December 2000. It has an AR_0 of 0.2% and this is not statistically significant from zero. The M&A with payment announcement on 23/05/2003 as part of the company's 2003 strategic restructuring process resulted in a AR_0 of 3.76%, CAR(0, +1) of 4.21% and CAR(-2, +2) of 10.90%, and CAR(-5, +5) of 10.73%, except CAR(0, +1), all significant at the 1% level. This M&A transaction was not completed. On 15/09/03 the company announced the cancellation of the intended M&A with payment announcement. As the cancellation announcement was made during the stock's suspension period, event study can not be carried out. Finally, the market reacted negatively to announcement relate to the managerial restructuring announcement. The results in general are consistent with that of case 1. In addition, there is an interesting comparison of market reaction between M&A with and without payment announcements. In this case, the market reacted negatively to M&A without payment announcements but positively and significantly to M&A with payment announcement.

In summary, Sichuan Joint-WIT started to experience lack of profitability and interest coverage shortfall in 2001. Its controlling government shareholder attempted a number of restructuring strategies, including transferring the State shares to a textile SOE, and operational restructuring but unsuccessful. The company's performance continues to deteriorate in 2002 and the company had to discontinue operation due to a lack of cash flow for working capital requirements. The company's labour force during 1999 and 2001 increased dramatically but started to decrease in 2002. Such large workforce is likely to be the source of the company's inefficiency and distress. In 2003 the company's State shareholder attempted to sell its State shares and exit the textile industry. The movement of labour force during 1999 and 2001 is a reflection of the relationship between government shareholding and employment issue. The company's performance in 1999

seems in line with industry median. It doubled its workforce in 2000. Following such sharp increase, its 2001 operating performance started to deteriorate.

5. SUMMARY AND CONCLUSIONS

The two case studies provide an information rich environment to understand how and why the distressed firms restructure and how these restructuring strategies impact shareholder wealth. Asset restructuring including M&A (with and without payment) and asset sales, debt and managerial restructuring strategies are employed by both firms. Equity restructuring is not employed. Because the two Chinese stock exchanges impose strict rules on firms wishing to issue further equity, it is very difficult for non-profitable firms to issue additional equity.

Both firms frequently sell assets under distress. The motivation for selling assets does not seem to be associated with enabling the two firms to meet overdue debt obligations. Instead, it is associated with the two firms' severe liquidity constraints and with providing liquidity for working capital requirements and, in the Jintai case, for management to experiment with new operational strategies.

The only statistically significant event study result is based on M&A with payment announcement made by the SOE firm. In fact the market reacts negatively to the initial M&A without payment announcements but strongly favourably to the eventual M&A with payment announcement. Bearing in mind this intended M&A with payment transaction would entail the privatisation of State shares, the market's favourable reaction suggest privatisation is desirable and government's role in the distress resolution process is unwelcome. In the non-SOE case, the market's reaction to M&A with payment announcement was indifferent as the results are positive but not significant. So it seems that when the company is already a commercial company without substantial State shares, takeover is not perceived favourably by the market as a turnaround strategy. This finding provides a testable hypothesis for future large scale study.

In the SOE case, managerial restructuring is observed only once, despite the company's continued performance deterioration, while this type of event is more frequently observed in the non-SOE case. The event study results on managerial restructuring events are consistently

negative (regardless of event window length). This negative result is not consistent with Dherment-Ferere and Renneboog (2002). Possible explanations include the lack of incentive for managers to exert efforts (Roland and Sekkat 2000) and of credible punishment for poor performance (Garnaut et al. 2004).

Descriptive data on the SOE case also show that despite being the smallest listed firm in the industry, it had extremely high number of employees. This could be an important cause of the firm's inefficiency. When the company was no longer able to operate due to lack of liquidity, government was involved in the settlement of employees, implying that social stability and employment were an important item on the government's agenda. However the government at the same time also tries to act as a shareholder and play an important role in the corporate world. The conflict of interest could be a strong explanation for the market's negative reaction to the government's involvement in restructuring.

Many observed restructuring strategies in the two cases discussed above do not have immediate cash generating implications which are different to what's observed in developed economies (Asquith et al. 1994; Lai & Sudarsanam 1997). This finding suggests that inefficient going concerns exist and that Chinese firms do not face the threat of bankruptcy. Further evidence to support the lack of bankruptcy threat argument comes from that fact that during the first year of distress in the first case, management still had the time to experiment with new operating strategies.

M&A and asset sales are perhaps a market mechanism to ensure resource mobility essential to the effective operation of an enterprise economy. In the light of the difficulties in formally liquidating economically unviable firms in the Chinese context, these observed mergers and asset sales are perhaps a beneficial outcome in terms of improved use of resources (Kahl 2001, Weston et al. 2001).

We also observe debt related restructuring announcements in the non-SOE (Jintai) case. Event study results show that the market reacts negatively to announcements on increasing leverage. This finding contradicts the debt governance theory advocated by Jensen (1986) and Wruck (1990). There are two potential explanations for this negative result. Firstly, as stated by Tian

(2004), debt governance is not at work in China - more bank loans mean increased management entrenchment and perks. Secondly, the announcements may signal to the market the firm's poor performance. Lastly, based on these two cases, we find the cumulative abnormal returns vary depending on the length of the test period specification. This is an important issue especially for large-scale studies.

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APPENDICES

Appendix 1

A translation of some of <<The formats of announcements by listed companies>>, Shenzhen Stock Exchange, effective 12th March 2002

1. Purchase/sell assets and debt restructuring.
   a. General information of the transaction, including names of both parties, nature of transaction (sell/buy/debt restructuring), prices, agreement date and transaction dates, if the transaction is between related parties.
   b. Board of directors' decision, voting details, etc. Also, if this transaction needs approval from certain government bodies, if agreement from creditors is required, if any agreement from a third party is required.
   c. List all necessary procedures for approval and other requirements and potential barriers for the intended transaction.
   d. Information about other parties. If the transaction involves the forgiveness of debts, information about the creditor, its relationship with the company.
   e. Debt restructuring here only refers to non-cash arrangements for debt reduction, interest payment suspension or reduction, change of covenants, and debt forgiveness.
   f. If the transaction is between related parties, see relevant legal provision for announcements.
2. Transactions between related parties
   a. Generation introduction: agreement date, venue, relationship between parties, shareholder meeting and board of directors meeting's decision and voting details, if such transaction requires approvals, etc.
   b. Details about the transaction, etc.
3. Distribute and transfer equity shares (with or without payments)
   a. Meeting time and details of the shareholder meeting when the notion to issue further equity shares, or transfer equity shares has been passed.
   b. Registration of new shares/shareholders.
4. Shareholders' meeting notice
5. The resolution of shareholders meetings
6. Make external investment (including entrusting)
7. Provide guarantees for others
   a. General information.
   b. Information about the guaranteed company.
   c. Content of the guarantee.
   d. Comments from the board of directors, reason for such guarantee, etc.
8. Change the purpose of funds raised
9. Unusual share price movements
   a. Introduction – state that there is observed share price abnormal movements, the reason for such movement, or for the suspension of its listing.
   b. After conformation with major shareholders and management team, provide reasonable explanation for such observation. If no known cause to the company for such movements, issue standard statement.
10. Clarification
11. Major litigation and court order
12. Receiving permission to issue additional equity
13. Change share name abbreviation
14. Independent director nomination

Appendix 2 International comparison of bankruptcy laws

This table is constructed by the authors extending the framework of Franks & Torous (1992) and Claessens et al. (2003). For US & UK, features (1) - (4), (7) - (9) are from Franks & Torous (1996), features (5) and (6) are based on author's analysis. For Indonesia, Korea, Malaysia, Philippines and Thailand, features (1) - (3), (5) and (6) are from Claessens et al. (2003); features (4), (7) - (9) are from ADB (1999, 2000). Information on China is from ADB (1999, 2000).

Features	(1) Costs*	(2) Does management stay in bankruptcy	(3) Is there automatic stay	(4) Creditor treatments	(5) Process of Liquidation	(6) Process of Restructuring	(7) Solvency requirements	(8) Management of liabilities	(9) New financing
United States	Higher than UK because (i) Lengthy period (ii) Court extensively involved in process and can delay business decisions	Yes. Debtor-in-possession: in majority of cases previous managers retain control	All creditors claims stayed (exceptions e.g. lease payments)	Secured creditors paid first. Protection of creditors not as robust as in the UK	Efficient, quick	Inefficient, lengthy	Firms need not be insolvent	Great discretion to renegotiate claims against debtor-in-possession	Debtor-in-possession financing available
United Kingdom	Lower than US because (i) Short period (ii) Creditors minimally involved in process	No. Insolvency practitioner: Previous managers must relinquish control	None in receivership	Protection of secured creditor interests. Secured creditors paid first.	Efficient, quick	Efficient, quick	Firms can not meet payments to creditors	No discretion in receivership and limited in administration	Additional finance usually from secured lenders prior to sale of the business. Other lenders in administration
Indonesia	Not expensive in liquidation; Expensive and lengthy in restructuring	Yes under the old code; No after August 1998	Yes under the old code; No after August 1998	Costs of proceedings are paid first, followed by claims on wages and secured creditors	Difficult, inefficient, slow	Difficult, inefficient, very slow	Firms need not be insolvent. Firm cannot or is expected to be unable to meet payments.	Discretion to renegotiate claims.	No provision
Korea	Not expensive in liquidation but expensive in restructuring	No	No	Secured creditors paid first	Easy, efficient, quick	Difficult, efficient, quick	Firms can not meet payments to creditors	Limited discretion to renegotiate claims.	Sanctions provision of new money, no priority repayment of that new money
Malaysia	Expensive and lengthy in both liquidation and restructuring processes	No	No	Secured creditors paid first	Easy, efficient, slow	Difficult, efficient, slow	Firms need not be insolvent.	Discretion to renegotiate claims.	No provision

Philippines	Not expensive in liquidation, expensive in restructuring, slow and very inefficient in both processes	Yes Management committee (include previous managers) or rehabilitation receiver resume control.	Yes. Management committee or rehabilitation receiver also has the right to relief debts	Taxes are paid first, followed by wages, cost of proceedings and secured creditors	Very difficult, inefficient, very slow	Very difficult, inefficient, slow	Firms need not be insolvent.	Power to issue debt relief against all creditor claims.	No provision
Thailand	Not expensive	No	No	Cost of proceedings are paid first followed by taxes, wage claims and secured creditors	Easy, efficient but slow	Difficult, efficient, quick	Firms must be insolvent by "asset/liability" test. No voluntary bankruptcy	Great discretion to renegotiate claims.	Sanctions provision of new money, no priority repayment of that new money
China	In case of liquidation, lower than the UK i) No involvement of professional practitioners ii) Court proceedings are straightforward	In most cases managers *de facto* stay. In case of liquidation, court-appointed liquidation commissions represent only enterprise owner and employee interests	All creditors claims *de facto* stayed	For SOEs, wages and taxes are paid first before secured creditors, for non-SOEs, Secured creditor paid first	Difficult, efficient	N/A (no known cases so far)	Firms can not meet payments to creditors	Discretion to renegotiate claims.	No provision

*The comparison on costs should be treated with caution between US/UK and Asia/China, as there is no systematic empirical study of bankruptcy cost for Asian countries including China. The comparisons between China and the other five Asian economies are based on ADB (1999, 2000) and are comparable.

Appendix 3 Event calendar for Shandong Jintai

These 36 announcements were made by the company in compliance with the Stock Exchanges' official announcement requirements and were collected from the Stock Exchange's official websites: www.cninfo.com.cn and www.cnlist.com.cn; and according to the company's annual reports. The events are grouped into four categories and are colour coded. Column 3 gives the date of the announcements, if there is a different date in bracket, then the share was not traded on the announcement date and calculations are done using the date presented in bracket (the next trading day); Column 4 presents the details of the announcements; Column 5 presents the share's unadjusted day return (log return); Column 6 presents the market's day return (log return of Shanghai SE A Index); Column 7 presents the company's daily value gain/loss by using the absolute difference in opening and closing prices multiply by the total number of tradable shares; Using market model in event study methodology, we calculate the abnormal return on day 0 (AR_0), cumulative abnormal return for different width of event windows, for the highlighted events. These results are presented in Column 8-11.

	Dates	Type	Content	Firm day return	Market day return	Daily value gain/loss (RMB mn)	AR_0	CAR_{+1}	$CAR_{+/-2}$	$CAR_{+/-5}$
1	17/12/01	M&A announcement	Controlling shareholder (Shandong Medical Research Centre) selling its holding of 26.99% shares to Xin Hong Ji Group.	-3.12%	-0.61%	-29.17	-2.51%	-0.85%	+2.37%	-1.50%
2	20/12/01	Asset sales/ investment	The company was selling one product line for RMB0.33m (net book value 0.22m), (in the same announcement, the company was also using some fixed assets as investment to set up a joint venture with the buyer, with the fixed assets the company would hold 78% of the joint venture)	-4.17%	-2.53%	-37.99	-1.65%	+0.17%	+1.17%	+2.71%
3	25/12/01	M&A news follow-up	Further announcement about the controlling shareholder, Shandong Medical Research Centre's transfer of its 26.99% shares to Xin Hong Ji Group.	-0.08%	+0.30%	-0.68	-0.38%	-0.85%	+1.99%	-0.85%
4	07/01/02	Change management	Three directors resigned and candidates elected. GM and CFO resigned and appointed new persons.	-10.96%	-1.83%	-92.26	**-9.13%*** **	-5.58%	-5.94%	-3.12%
5	01/02/02		Existing controlling shareholder Shandong Medical Research Centre re-registered to be a limited	+4.84%	-0. 42%	37.31				

			company.								
6	02/02/02 (04/02/02)	M&A follow-up	Annual report (p6) mentioned that news were announced on this day about the M&A	+3.21%	+1.70%	25.78	+1.51%	+0.20%	+7.92%	+2.70%
7	08/02/02 (25/02/02)	Change management	Shareholders' meeting approved the motion to add additional three directors to the board	+1.01%	+1.01%	8.14	Not trading, AR_{+1}= -0.56%	-0.83%	-1.41%	+2.06%
8	04/03/02	Change management	Elected chairman for the board, secretary of board resigned, deputy GMs appointed etc.	+4.93%	+1.62%	39.34	+3.32%	+6.12%	+3.18%	+1.30%
9	01/04/02	Delay annual report announcement	Due to the change of ownership and the transition work, annual report release will be delayed from 05/04/02 to 29/04/02	+0.22%	+0.28%	2.04				
10	28/04/02 (29/04/02)	Annual report announcement	Announced its annual report for 2001.	+0.75%	+1.53%	6.78				
11	24/05/02	Investment/ operational restructuring	Board meeting approved two motions: 1. The company will use the fixed assets of one of its subsidiaries as 20% holding to form a new company with another company which will hold 80% of the new company. 2. Will split retail business from the company to form a new pharmacy retail company. Jin Tai will hold 80%, the rest 20% will be held by its partner which is also the partner of Jintai for the new company mentioned in Motion 1.	-1.97%	-1.42%	-16.28	-0.2%	+0.5%	-0.5%	-7.8%
12	11/06/02 (12/06/02)	Multiple news	Shareholders' meeting held on 07/06/02 approved the following: 1. No dividends, no new equity 2. renew contract with auditor firm 3. Appointed two new directors	+3.01%	+0.66%	-6.11				
13	19/06/02	Increase	Board meeting approved the	-2.60%	-1.09%	-19.67	-1.51%	-1.43%	+1.73%	-0.21%

		leverage (new bank loan)	motion to borrow additional loan (working capital loan, max 2 years) from its bank. This borrowing needs to be approved by shareholders' meeting.							
14	02/07/02	Multiple news	Board meeting approved the motions: 1. establish a modern self auditing procedure 2. Invest RMB14m as 70% holding of a new company.	+2.35%	+0.61%	+19.67	+1.73%	+0.23%	-2.40%	-2.29%
15	06/07/02 (08/07/02)	Major shareholder selling its holding (non-tradable shares)	Second and the 5th largest shareholders sold all of its shares. The buyer holds 10.25% of the company and become the 2nd largest shareholder.	+3.26%	+0.63%	+27.81				
16	27/07/02 (29/07/02)	M&A follow-up	Annual report (p6) mentioned that news were announced on this day about the M&A	+1.20%	+0.49%	9.50	+0.70%	-0.01%	+0.89%	-2.98%
17	26/08/02	Q2 report	Announcement of its semi-annual key accounting information	-1.82%	-0.75%	-14.25				
18	31/10/02	Q3 report	Announced its Q3 report	-0. 97%	-0.15%	-6.11				
19	13/12/02	Increase leverage (new bank loan)	The company took a loan of RMB20m, on 11/12/02, from Jiao Tong Bank, payable in one year. External guarantee was provided by Wu Han Dao Bo Company.	+2.31%	+0.92%	+14.25	+1.39%	+1.44%	+1.97%	-1.58%
20	14/12/02 (16/12/02)	Debt related (providing guarantee)	The company provides guarantee for Wu Han Dao Bo Company for RMB24m loan (15 months loan). The aggregate guarantee the company has provided thus far amount to RMB57.66m.	+0.87%	+0.82%	+5.43	Same as above			

21	07/01/03	Announcement about transactions with related company	Announcement about transactions with related companies[20] which took place in 2001 and 2002.	-1.70%	-0.20%	-9.50
22	10/02/03	Multiple news	Change management: one director and the GM resigned. New GM appointed. The M&A initiated in Dec 02 is completed.	+3.22%	-1.30%	20.35
23	18/02/03	Warning of loss	Because of restructuring that took place in the second half of 2002, the company will incur a loss in its 2002 annual report.	-2.94%	-0.01%	-18.99
24	08/04/03 (09/04/03)	Multiple news	Deputy GM, CFO resigned. No appointment of new CFO but the post will be assumed by current GM. Also announced its 2002 annual report. Because of the loss, as agreed by the stock exchange, the company's share will be suspended on 8th April 03 and resume on 9th April 03. Starting on the 9th, the company is officially a ST firm and its share prices will be subject to a daily +/- 5% movements cap.	-5.13%	1.90%	-27.81

The deduction of total assets is due to the sale of textile assets and the purchase of pharmaeutical related assets (p14 of 2003AR). The difficulty of the textile business is due to competition and over supply, pressure on prices etc., also due to the relocation of the factory by government order (factories moving out of city as per the order of the government). The relocation process took longer than planned, affected operations very negatively.

[20] See 2nd point in Appendix 2 on the definition of 'related companies'.

25	25/04/03	Q1 report	Q1 report announcement	1.39%	-1.10%	6.78				
26	30/05/03	Multiple news (board meeting)	1. Changes to board 2. No dividend or new equity 3. renew contract with auditor 4. Shareholders' meeting will be held on 30/06/03 to discuss the above	+0.16%	+0.52%	0.68				
27	01/07/03 (02/07/03)	Shareholders meeting	Approved the content of the Board meeting	-2.93%	-0.83%	-1.36				
28	31/07/03	Q2 report	Announced Q2 report	1.67%	-0.19%	6.11				
29	14/08/03	Increase leverage (renew loan)	The RMB20m loan was due on 08/08/03. Two new loans were taken from the same bank to pay back the existing loan. 1st loan is RMB10m for two years, 2nd loan is RMB10m for three years. Guarantee provided by its 3rd largest shareholder (Xin Heng Ji Co).	-1.13%	-0.68%	-4.07	-0.45%	-1.40%	-1.45%	-1.89%
30	22/08/03	Additional info about Q2 report	Following the auditing by Shanghai Stock Exchange, the company provided additional information regarding its Q2 report.	-0. 58%	-0.17%	-2.04				
31	27/08/03	Illegal deed (investigation)	The China Securities Commission is investigating alleged illegal deed by the company starting 26th August 03.	+1.76%	+0.01%	+6.11				
32	08/09/03	Illegal deed (board meeting)	Board meeting discussed its action plan in reply to the criticism imposed by the Shanghai Stock Exchange.	-0.77%	-0.40%	-2.71				
33	10/10/03	Court order for repayment	Court order that the company must repay its loan of RMB4.5m to Jinan Runbo within 10 days. The company will appeal.	0.19%	2.47%	0.68				
34	24/10/03	Q3 report		-1.58%	-0.35%	-5.43				
35	07/11/03	Multiple news	The company's loan of RMB3.33m was due on 12/10/03. The company was unable to renew the	-3.45%	-1.60%	-9.50				

			loan. Also, the company received a court order to pay RMB4.6m to a supplier. The company will appeal.			
36	24/12/03	Follow-up on lawsuits	Further details about the above two lawsuits. The company could lose the lawsuit and incur negative impact to its operations.	-5.24%	0.85%	-13.57

* Significant at the 10% level
** Significant at the 5% level
***Significant at the 1% level

Appendix 4 Event calendar for Sichuan Joint-WIT

These 17 announcements were made by the company in compliance with the Stock Exchanges' official announcement requirements and were collected from the Stock Exchange's official websites: www.cninfo.com.cn and www.cnlist.com.cn; and was cross-checked with another popular website for financial information www.163.com.. The events are grouped into three categories and are colour coded. Column 3 gives the date of the announcements, if there is a different date in bracket, then the share was not traded on the announcement date and calculations are done using the date presented in bracket (the next trading day); Column 4 presents the details of the announcements; Column 5 presents the share's unadjusted day return (log return); Column 6 presents the market's day return (log return of Shenzhen A Index); Column 7 presents the company's daily value gain/loss by using the absolute difference in opening and closing prices multiply by the total number of tradable shares; Using market model in event study methodology, we calculate the abnormal return on day 0 (AR_0), cumulative abnormal return for different width of event windows, for the highlighted events (restructuring related). These results are presented in Column 8-11.

	Dates	Type	Content	Firm day return	Market day return	Daily value gain/loss (RMB mn)	AR_0	CAR_{+1}	$CAR_{+/-2}$	$CAR_{+/-5}$
1	30/12/2000	Operations restructuring (asset restructuring)	Restructuring two subsidiaries, using both subsidiaries' operating assets as investment in the new JV, holding 70.56% and 82.63%, respectively (163.cm)	1.60%	1.40%	9.1	0.20%	-0.03%	0.49%	3.22%
2	03/07/2001	Purchasing material	The company purchased raw material from a related company, the transaction amount to RMB46.2mn.							
3	18/09/2001	M&A without payment	Controlling shareholder Chendu Asset Management Co transferred its holding of 47.7% to another SOE company (in textile) and this was approved by the Sichuan Municiple Government	1.16%	0.80%	5.6	0.36%	-1.04%	1.04%	-9.24%
4	18/10/2001	M&A without payment	Controlling shareholder Chendu Asset Management Co transferred its holding of 47.7% to another SOE company (in textile) and this was approved by the Finance M\	-0.71%	-1.76%	-2.8	1.05%	0.21%	-1.62%	3.94%
5	29/05/2002	Purchasing material	The company purchased raw material from two related companies, the transactions amount to RMB30.33mn and RMB37.35mn.							

6	06/07/2002	M&A without payment	Controlling shareholder Chendu Asset Management Co transferred its holding of 47.7% to another SOE company (in textile) and this was approved by the Finance Ministry.	0.46%	0.88%	1.75	-0.42%	-0.78%	1.31%	-1.09%
7	11/07/2002	Q2 loss	Q2 continue loss, no improvement from Q1.							
8	31/10/2002	Q3 report	Announced Q3 performance (loss)							
9	28/12/2002	Warning of loss and ST status	Due to cash flow problem unable to organise normal operating activities, the company will incur loss this year and as a result will be 'ST'ed.							
10	28/01/2003	Restructuring	Informed by the controlling shareholder, the municaple government will lead the company's restructuring, relocation and employee redundency.	5.50%	0.24%	16.8				
11	21/02/2003	2002 performance report	Report performance in 2002 (loss), announce its 'ST' status and the 5% share price movement cap.							
12	30/04/2003	*ST announceme nt	Warning that the company may be delisted							
13	23/05/2003	M&A with payment	Company was informed that the controlling State shareholder signed agreement on 22/05/03 to sell 43.07% of its holding to a pharmaceutical company for RMB167mn. After the transaction the buyer would become the controlling shareholder.	4.83%	1.07%	13.3	**3.76%**	**4.21%**	**10.90%**	**10.73%**

14	28/06/2003	change management	According to the 2003 AR, on 27-06-2003, new Chairman of the board, CEO, CFO and GM etc has been elected. The previous ones left the position due to the M&A. The news was announced on 28th June 2003.	-1.36%	-0.77%	-3.5	-0.60%	-0.28%	-0.90%	-4.54%
15	10/07/2003	Controlling shareholder default	Controlling shareholder (wholly owned SOE)'s holding of 50.07mn shares (43.7%) was frozen by the court because of its overdue debts owed to Chendu Industrial Investment Ltd. The court order was given on 23-06-2003 for a period of one year.							
16	21/08/2003	Asset sales	Company intend to sell all its assets relating to textile business and buy controlling shareholding of a pharmaceutical company(same news about selling on 27/08/03). This transaction was cancelled on 19/08/03. Also the company announced its Q2 report (loss)	Share price capped since 20-Aug-2002			0.09%	0.13%	-1.79%	2.32%
17	27/08/2003	Operations restructuring (asset restructuring)	Company sold its total assets and debts relating to textile business valued at RMB26.8bn, deducting redundency fee of RMB13.2bn, and therefore transaction price at RMB13.6bn. Buyer pay cash. The company then bought 81% holding of a pharmaceutical company at the price of RMB0.12bn from a related company. The transactions were completed on 31st December 2003.	Share price capped since 20-Aug-2003						
18	15/09/2003	M&A cancellation	Agreement reached to cancel the M&A transaction announced on 23/05/03.	Share suspended						

19	30/09/2003	Debt restructuring	The company's accounts payable to another textile company amounting to RMB43mn was transferred to another company.							
20	22/12/2003	Restructuring follow-up	announced the relisting, company's major asset sales and purchas report and auditing on these transactions,							
21	24/12/2003	Change of major shareholder (2nd largest)	Second and third largest State shareholders signed cancellation of an agreement to sell their holdings to two Haikou companies (the selling agreement was signed on 05/07/99). Also these two major shareholders sold their holdings totalling 21.82%, to New World (Hong Kong). After this transaction, New World would become the second largest shareholder.	-3.97%	0.75%	-8.4	**-4.71%***	**-7.00%***	**-14.74%***	

* Significant at the 10% level
** Significant at the 5% level
***Significant at the 1% level

TABLES

Table 1 Accounting information for Shandong Jintai 1999-2003

This table presents the key accounting data for Shandong Jintai and its industry (4-digit SIC classification), in terms of operating and financial performance, liquidity, investment and size, during 1999 to 2003. t=-1, 0, and +1 denotes prior to, first and second year of coverage shortfall, respectively. For detailed discussion on each empirical proxy see Kam et al (2005).

	t=-3 (Y1999)		t=-2 (Y2000)		t=-1 (Y2001)		t=0 (Y2002)		t=+1 (Y2003)	
Selection criterion	Firm	Industry median	Firm	Industry median	Firm	Industry median	Firm	Industry median	Firm	Industry median
Interest cover	#N/A	7.327	3.988	7.632	3.244	6.889	-9.830	6.962	-5.078	5.991
Variables										
Operating performance										
EBITDA/asset	#N/A	0.096	0.073	0.093	0.064	0.078	-0.373	0.079	-0.254	0.084
Gross Profit Margin	0.296	0.417	0.296	0.457	0.222	0.418	0.120	0.378	0.265	0.359
EBITDA/sales	#N/A	0.243	0.191	0.220	0.159	0.213	-4.275	0.195	-5.832	0.180
Sales/asset	0.452	0.401	0.381	0.421	0.401	0.392	0.087	0.428	0.044	0.508
Financial performance										
Interest Expense/assets	0.019	0.013	0.018	0.012	0.020	0.011	0.038	0.011	0.050	0.014
Current liab/total liab	0.811	0.905	0.723	0.915	0.866	0.941	1.000	0.949	0.925	0.892
Total liab/asset	0.500	0.487	0.539	0.421	0.522	0.377	0.811	0.420	1.107	0.433
Total debt/asset	0.327	0.244	0.407	0.223	0.370	0.250	0.540	0.262	0.675	0.277
Accounts payable/total liab	0.174	0.149	0.115	0.132	0.116	0.134	0.220	0.134	0.015	0.135
AccountsPayable/Sales	0.193	0.144	0.163	0.130	0.151	0.129	2.040	0.129	0.387	0.127
Liquidity										
Current asset/current liab	1.415	1.201	1.075	1.564	1.059	1.500	0.426	1.345	0.281	1.244
Investment										
Capex/assets	#N/A	0.038	0.022	0.045	0.007	0.064	0.032	0.067	0.002	0.066
Size										
Sales/employee (RMBmn)	#N/A	0.195	0.206	0.181	0.252	0.229	0.031	0.285	#N/A	0.340
Asset/employee (RMB)	#N/A	526246.9	541153.9	546587.6	629926.5	657347.4	349653.8	669646.0	#N/A	720334.9
Employees	#N/A	1353	786	1344	680	1456	904	1540	#N/A	1669
Sales (RMBmn)	172.7		162.2		171.6		27.6		10.5	
Assets (RMBmn)	382.5	608.4	425.3	786.8	428.4	988.6	316.1	1184.8	240.81	1391.7
Equity (RMBmn)	181.9		187.0		195.3		44.9		-31.72	
Other										
Accounts receivables/Sales	0.658		0.260		0.211		0.383		0.936	
Accounts receivables (days)	#N/A		172.8		82.2		305.3		349.9	

Table 2 Market reactions to different types of restructuring in the Jintai case

This table summarises the cumulative value gain/loss and event study results for the four types of announcements relating to different strategies employed by Shandong Jintai to reverse its performance decline and financial distress. Column 1 states the announcement type; Column 2 states the total number of announcements included in the calculation; Column 3 presents the cumulative value gain/loss as a result of announcements made within each type. Columns 4-7 presents the event study results using the market model. AAR_0 denotes average abnormal return on day 0, $CAAR_{+1}$ denotes cumulative average abnormal return from day 0 to +1; $CAAR_{+/-2}$ denotes cumulative average abnormal return from day –2 to day +2; and $CAAR_{+/-5}$ denotes cumulative average abnormal return from day –5 to day +5; t-statistics are in parenthesis

Announcement type	N	Cumulative daily value gain/loss (RMB mn)	AAR_0	CAAR(0,+1)	CAAR(-2,+2)	CAAR(-5,+5)
M&A with payment	4	5.43	-0.17%	-0.38%	3.29%	-0.54%
			(-0.057)	(-0.088)	(0.488)	(-0.054)
Asset sales/operational restructuring	2	-54.27	-1.10%	+0.24%	+3.40%	-2.62%
			(-0.051)	(0.055)	(0.033)	(-0.262)
Managerial restructuring	3	-44.78	-2.91%	-1.79%	-1.98%	-0.52%
			(-0.964)	(-0.419)	(-0.294)	(-0.052)
Increasing leverage	3	-4.06	-0.19%	-0.47%	0.75%	-1.23%
			(-0.062)	(-0.109)	(0.112)	(-0.123)

*No results are significant in this table

Table 3 Accounting information for Sichuan Joint-WIT 1999-2003

This table presents the key accounting data for Sichuan Joint-WIT and its industry (4-digit SIC classification), in terms of operating and financial performance, liquidity, investment and size, during 1999 to 2003. t=-1, 0, and +1 denotes prior to, first and second year of coverage shortfall, respectively. For detailed discussion on each empirical proxy see Kam et al (2005).

	t=-2 (Y1999)		t=-1 (Y2000)		t=0 (Y2001)		t=+1 (Y2002)		t=+2 (Y2003)	
Selection criterion	Firm	Industry median	Firm	Industry median	Firm	Industry median	Firm	Industry median	Firm	Industry median
Interest cover	15.918	17.287	14.481	20.600	-5.632	9.971	-13.096	8.155	9.236	8.637
Variables										
Operating performance										
EBITDA/asset	0.117	0.133	0.108	0.092	-0.082	0.077	-0.078	0.084	0.200	0.069
Gross Profit Margin	0.118	0.187	0.141	0.208	0.005	0.184	-0.038	0.195	0.060	0.165
EBITDA/sales	0.192	0.199	0.135	0.221	-0.101	0.176	-0.095	0.204	0.143	0.145
Sales/asset	0.608	0.703	0.797	0.418	0.814	0.433	0.819	0.434	1.396	0.481
Financial performance										
Interest Expense/assets	0.007	0.008	0.007	0.004	0.015	0.008	0.006	0.010	0.022	0.008
Current liab/total liab	0.997	0.834	0.932	0.847	0.630	0.643	0.699	0.796	1.000	0.907
Total liab/asset	0.441	0.354	0.551	0.396	0.630	0.430	0.717	0.449	0.256	0.548
Total debt/asset	0.096	0.239	0.197	0.261	0.213	0.294	0.199	0.340	0.026	0.374
Accounts payable/total liab	0.276	0.061	0.194	0.081	0.172	0.117	0.152	0.048	0.092	0.147
AccountsPayable/Sales	0.201	0.036	0.134	0.085	0.133	0.094	0.133	0.049	0.017	0.135
Liquidity										
Current asset/current liab	1.101	2.376	0.546	1.591	0.624	1.662	0.318	1.045	2.327	1.156
Investment										
Capex/assets	0.002	0.052	0.014	0.119	0.007	0.094	0.016	0.069	0.013	0.070
Size										
Sales/employee (RMBmn)	0.058	0.109	0.049	0.106	0.037	0.116	0.048	0.136	0.371	0.184
Asset/employee (RMB)	94983.7	194905.5	61737.0	236837.4	45826.7	252112.7	58900.8	303226.3	266163.6	348226.1
Employees	4350	3680	8038	3586	9847	3722	6560	3727	709.00	3021
Sales (RMBmn)	251.2		395.4		367.3		316.5		263.4	
Assets (RMBmn)	413.2	608.4	496.2	786.8	451.3	988.6	386.4	1184.8	188.71	1391.7
Equity (RMBmn)	230.9		222.8		160.4		104.1		114.84	
Other										
Accounts receivables/Sales	0.456		0.033		0.034		0.016		0.164	
Accounts receivables (days)	#N/A		58.1		12.4		9.8		32.9	

Table 4 Market reactions to different types of restructuring in the Sichuan Joint-WIT case

This table presents the cumulative value gain/loss and event study results for the four types of announcements relating to different strategies employed by Sichuan Joint-WIT to reverse its performance decline and financial distress. Column 1 states the announcement type; Column 2 states the total number of announcements included in the calculation; Column 3 presents the cumulative value gain/loss as a result of announcements made within each type. Columns 4-7 presents the event study results using market model. AAR_0 denotes average abnormal return on day 0, $CAAR_{+1}$ denotes cumulative average abnormal return from day 0 to +1; $CAAR_{+/-2}$ denotes cumulative average abnormal return from day –2 to day +2; and $CAAR_{+/-5}$ denotes cumulative average abnormal return from day –5 to day +5. T-statistics are in parenthesis.

Announcement type	N	Cumulative daily value gain/loss (RMB mn)	AAR_0	$CAAR_{+1}$	$CAAR_{+/-2}$	$CAAR_{+/-5}$
M&A with payment	1	13.3	**3.76%***	**4.21%***	**10.90%*****	**10.73*****
			(2.195)	(1.736)	(2.846)	(1.888)
Asset sales/investment; operational restructuring	1	9.10	0.20%	-0.03%	0.49%	3.22%
			(0.118)	(-0.013)	(0.129)	(0.566)
M&A without payment	4	-17.15	+0.33%	-0.07%	-0.29%	-2.25%
			(0.197)	(-0.028)	(-0.077)	(-0.406)
Managerial restructuring	1	-3.5	-0.60%	-0.28%	-0.90%	-4.54%
			(-0.350)	(-0.117)	(-0.235)	(-0.800)

* Significant at the 10% level
** Significant at the 5% level
***Significant at the 1% level

Figure 1 Types of restructuring

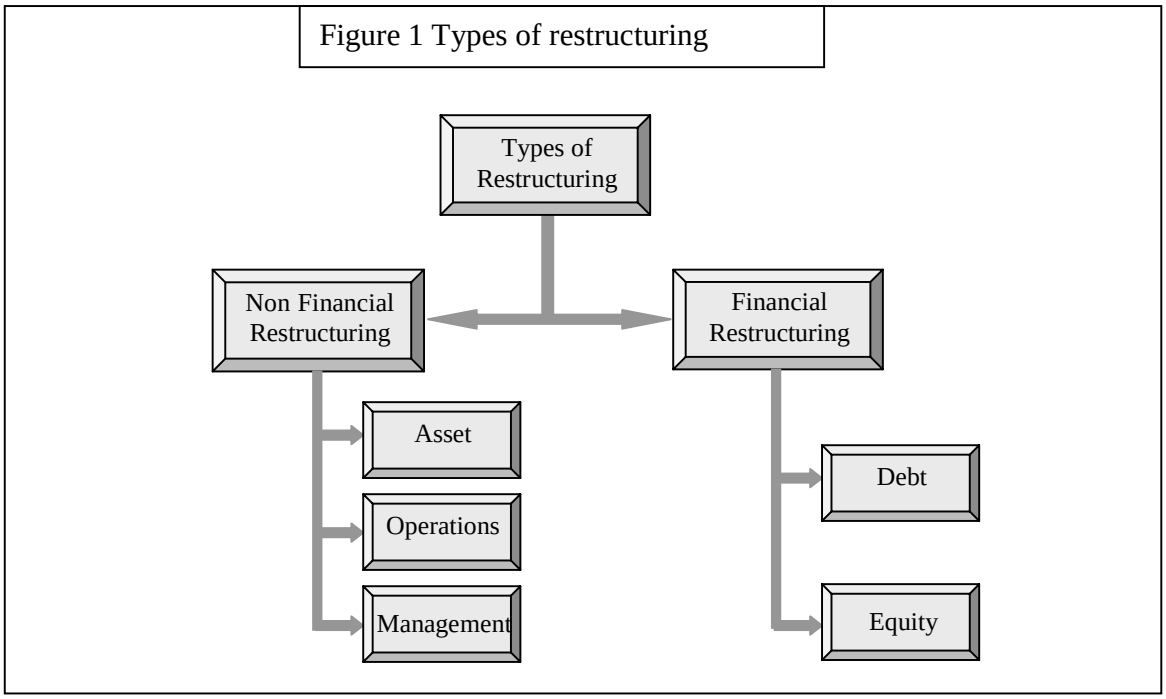


Figure 2 Cumulative returns of Shandong Jintai

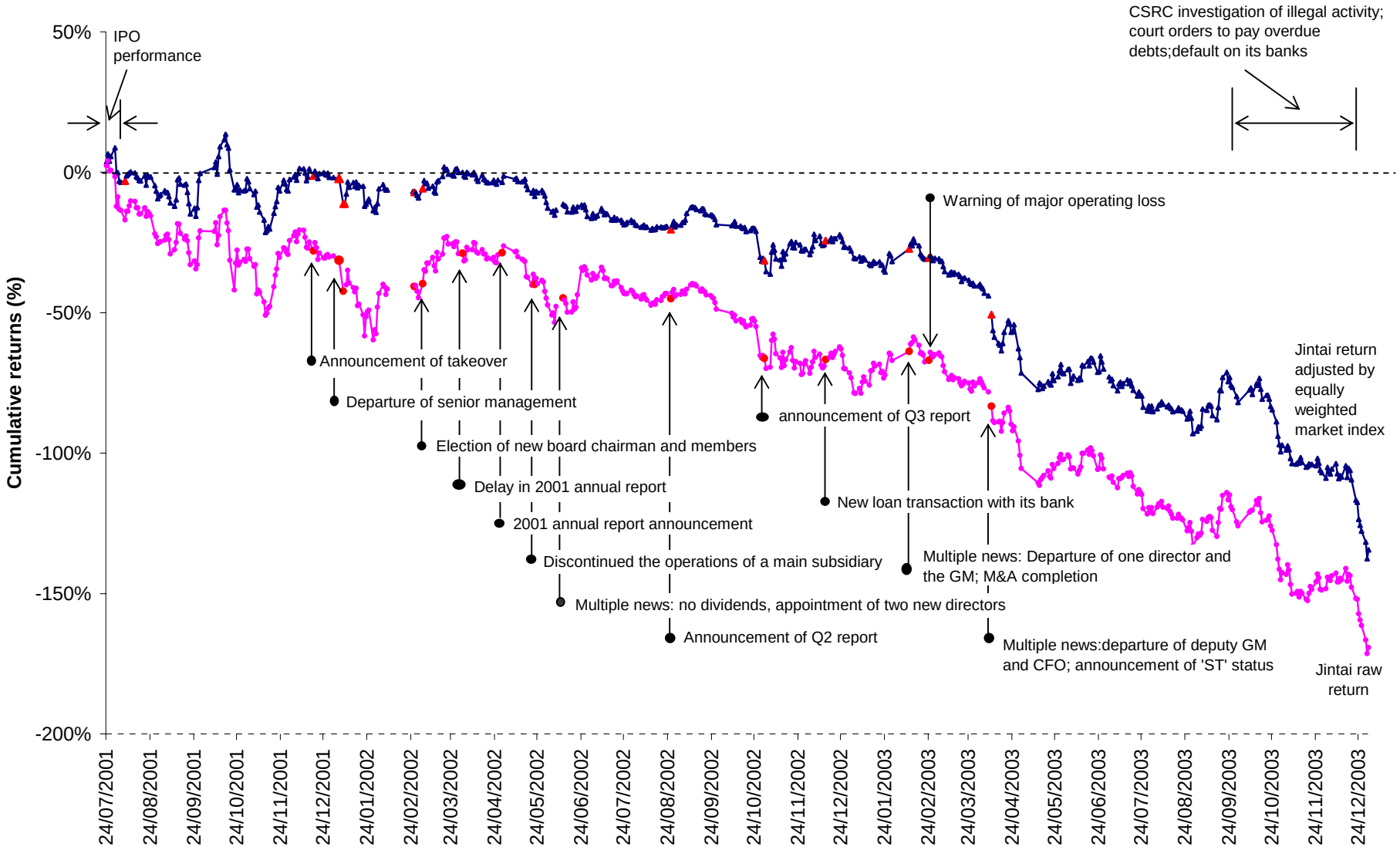
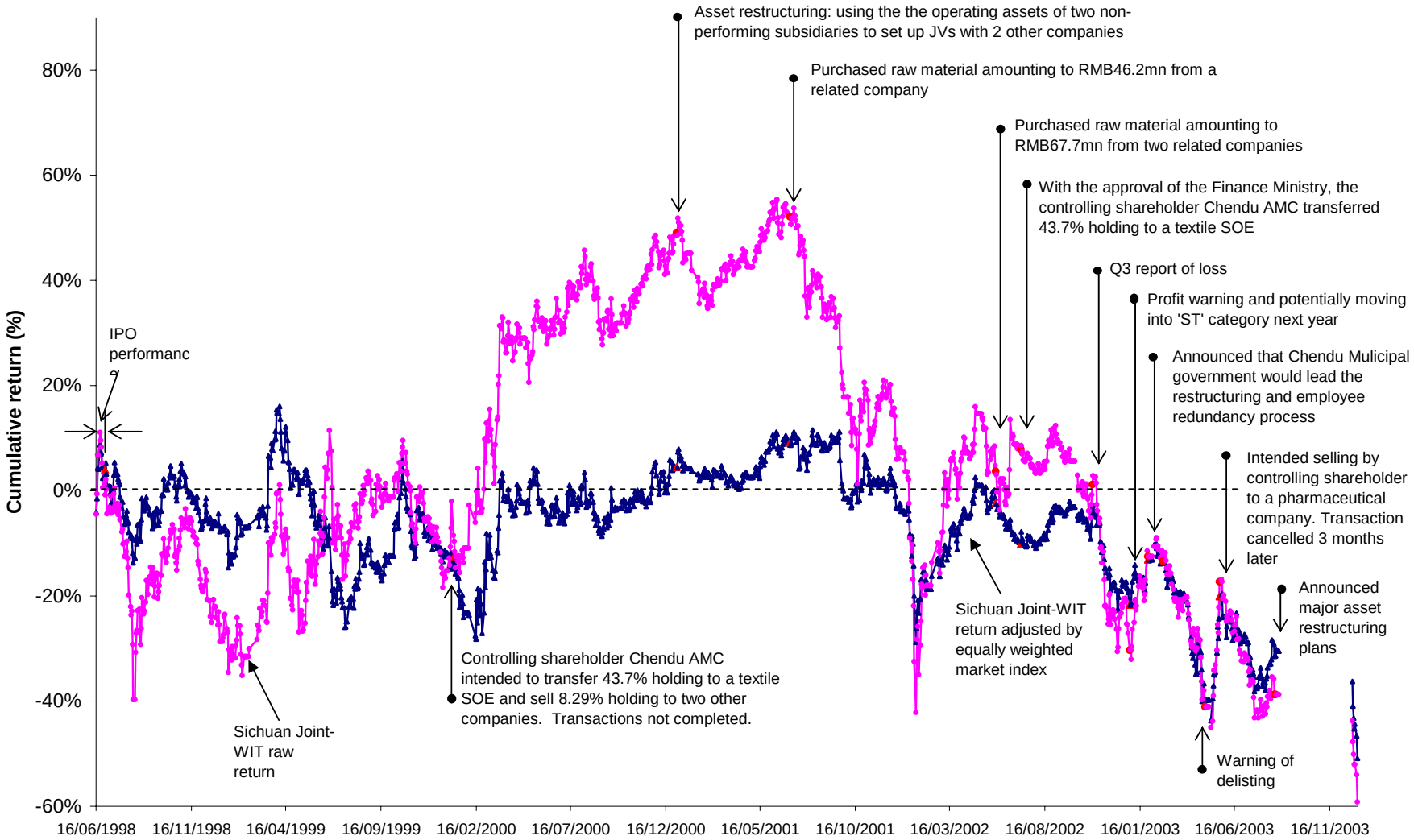


Figure 3 Cumulative returns for Sichuan Joint-WIT



I would like to see this section telling more of a story. I think you should divide the accounts analysis into:

(a) pre-distress = 1999-2001 – a period of declining operating performance, and weak financial performance as compared with the median.

(b) then highlight key weaknesses that came to light – see 1st para. on p.16

(c) then performance during distress = 2002 & 2003. Here report on the sharp reduction in size as shown by the accounts - & give the main explanations, which (in my view) are: (i) the court orders etc that you report in para. 2 of p.15. But there may be story here – do these court orders have a role in insolvency in China where formal bankruptcy law seems to play little part? - the court may be an alternative route for creditors to get paid; if so, does this mean that only the more powerful creditors can follow this route? Amy – I've really made all this up from reading your case, but if there any sort of story here, it's worth including a discussion of it here, and in the Conclusions. (ii) perhaps the main reason for the decline in size from what I can see (& which you could make more of) is the first event on 24/5/02 when another company acquired an 80% interest in one of its major subsidiaries (or was it in **the** major subsidiary?). From what I read, this was a really major event – a major part of Jintai seems to have been hived off to another company. Which company was this? In fact I wonder how comparable the post-24/5/02 Jintai is to what it was before that date. Amy: do you agree with my reading of what happened? (This also raises the question as to whether, as part of this case, we also want to look at the share price performance of the company that purchased Jintai's business, both before & after 24/5/02. My feeling is no, because we are studying distressed firms & not M&A in general).