Downsizing and flexibility: Recent employment restructuring in Chinese state-owned machinery manufacturing companies

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This paper reports case study research findings on recent employment restructuring practices in the state sector under the transition context of China in the mid-1990s. The research focuses on the drive, process, and outcome of downsizing with respect to labour flexibility in the two state-owned machinery manufacturing companies from the management perspective. By employing the Western downsizing approaches as developed by Cameron's (1994), empirical findings on downsizing in the two studied Chinese state firms are examined and analyzed. The research concludes that downsizing is a necessary but not sufficient policy. Massively laying off staff does not come without costs. To the contrary it generates new personnel problems such as unwanted quits and drain of human capital that are critical for the continuous business process of the downsizing firm.

In dieser Arbeit wird von einer Fallstudie berichtet, die sich mit der gegenwärtigen Umstrukturierungspraxis im staatlichen Sektor in China Mitte der 90er Jahre beschäftigt. Aus der Perspektive des Managements und unter Nutzung der von Cameron (1994) entwickelten Downsizing-Ansätzen werden in zwei staatseigenen Maschinenbaubetrieben die Auswirkungen der Verkleinerung auf die Arbeitsflexibilität untersucht. Als Ergebnis wird in der Studie festgestellt, dass die Verkleinerung notwendig, aber nicht ausreichend ist. Insbesondere wird auch auf Probleme im Personalbereich eingegangen.

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Introduction

The 1990s witnessed a wave of organisational downsizing around the world (Cameron, 1994; Wardell and Towers, 1997; OECD, 1998). In the West, downsizing has become almost a way of life for majority companies (Mishra et al, 1998). It is claimed that "downsizing set the tone for the modern employment contracts" for most of the 1990s (Business Week, 1998: 93). Currently, one of the most striking employment changes in the West is the replacement of permanent by temporary and part-time jobs in the name of flexibility (Siebert, 1995; Osterman, 1994; Wood, 1989). Another significant change is that for the first time downsizing was not limited to the blue-collar workforce but started to affect white-collar workers in the mid-80s as well and that on a large scale, too (Freeman, 1994; Cameron, 1994; Mishra et al 1998). These developments in the West clearly show that the crucial question is less how downsizing is done, but rather whether to downsize or not.

In the Transition Economies of Eastern Europe, increased market competition and the harsh economic climate have led companies to downsizing as part of the cost reduction strategy for survival and continued operation. Thus, for example, Poland experienced massive layoffs in the early 1990s by which it was hoped that former employees would set up companies that could act as subcontractors to their old company which in turn would see less workers on the payroll while providing more flexibility (Redman and Keithley, 1998). Another reason for downsizing was to stimulate employees' efforts and motivation by exposing them to market discipline (ibid.).

More recently, downsizing has come into fashion in China, too. Yet, this policy took off in 1997 only when the Party Congress made it the national guideline for medium- and large-sized state firms[1]. To date, reports about layoffs in Chinese downsizing state firms can be found in the domestic and international media (e.g. Economist 21st 1998: 63; Beijing Review, 1998; People's Daily, March 24, 27, 1998, August 8, 16, 19, 29, 1998, Oct. 4, 1998). Within a short period of time, and as an unprecedented experience, many state workers have seen themselves redundant for the first time[2]. Downsizing not only led to massive layoffs that pushed unemployment to a record high[3], but also gave rise

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[1] The Chinese President Jiang Zeming in his speech to the 15th Party Congress in October 1997 proclaimed an overhaul of state firms by downsizing redundant workers in order to rejuvenate the state sector in the end of the century.

[2] It was reported that in 1997 around 11.51m workers were laid off, of which 7.87m were from state firms. Additional 3.5m workers would be laid off in 1998 (Beijing Review 1998: 18).

[3] By 1997, officially registered urban unemployment rate climbed to 3.1 percent, the highest since 1990. If included unregistered jobless in both rural and urban areas, unemployment rate rose to 26 percent in 1997 (see, Yang Yiyong (1997).

to enormous physical and psychic traumas to the new class of "unemployed" job losers while state assistance is lacking.

The following study attempts to (i) describe the downsizing process within the environment of a Transition Economy, and (ii) to analyse the process from the management perspective. It is an empirical study based on the case of two machine tool companies still part of the state sector. The following questions shape the analysis. 1) Under what circumstances was downsizing initiated? 2) How was downsizing executed? 3) What effects has downsizing had on the firm, especially with respect to labour flexibility?

The evidence presented in this paper is based mainly on an empirical case study conducted in the early 1998 in Wuhan[4]. The two machinery enterprises were chosen for an investigation because they moved to downsizing very recently in 1997 in response to the government call for a deepening reform. In order to gain greater insight into the downsizing process, a case study research method was used to collect empirical data, by employing face-to-face semi-structured interviews with general managers, personnel managers, production managers, as well as the government supervisory officials. That was complemented by an extensive analysis of documentary materials of the investigated firms, such as company's brochures, annual reports, newsletters, and government policy documents.

The selection of the two SOEs in the manufacturing industry was based on two considerations. First, the manufacturing industry had long been regarded as the backbone of economy by the government thereby asking for the dominance of the state. Second, and related to the first, most SOEs in the manufacturing industry are gargantuan, with a strong reliance on the state support of input supply and output procurement. As the recent reform exposes SOEs more closely to market forces, the reliance on state support, e.g. subsidies, became increasingly unaffordable. The move to downsizing is illustrative of the withdrawal of the state and the introduction of market mechanisms in SOEs. It can be expected that downsizing in SOEs in this industry have profound impacts on personnel management in companies

The main body of this paper consists of four parts. It starts with a brief literature review of downsizing in relation to flexibility (part I). The second part presents empirical downsizing practices in the two studied state firms in China's machinery industry, with referring Cameron's (1994) framework reviewed in the part I. This is followed by a discussion of problems associated with downsizing (part III). The paper ends with concluding remarks (in the part IV) with respect to our general knowledge on HRM and downsizing.

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[4] Wuhan is the largest city with seven million citizens in central China, and the capital of Hubei Province.

I. Downsizing and flexibility: An overview

In the management literature, downsizing is a widely used term with broad connotations. Downsizing, when seen from an *industry level* perspective, usually involves managerial actions of mergers, acquisitions, joint ventures, and market strategies of focus or diversification (Caves and Porter, 1976; Porter, 1985; Duffy, 1990). Dewitt (1993, 1998) distinguishes three types of actions that a downsizing firm normally takes in response to the industry's constraint shift: *retrenchment, downscaling*, and *downscoping*. Retrenchment refers to "shrinking" firm's attempt to maintain and strengthen its market position through centralisation and specialisation of production (Dewitt, 1993). In contrast, downscaling and downscoping represent 'partial exit' strategies by which a shrinking firm gives up competitive space and leaves gaps for incumbents or new entrants to pursue. The three identified downsizing actions "can be viewed as alternatives along a broad strategic choice continuum ranging from staying in to leaving an industry" (Dewitt, 1998:59).

From a strategic choice perspective, downsizing can be seen as a managerial response to drastic changes in the business environment. Child (1972:2) defined *strategic choice* as "the process whereby power-holders within organizations decide upon courses of strategic action." And "such action could be directed towards different targets" (Child, 1997: 45). For instance, external oriented actions may include a move into or out of given markets, or secure a favourable transaction term of the organization with external partners. Whereas internal actions may involve an attempt, within the limits of resource availability and indivisibility, to establish a configuration of personnel, technologies and work organization that is both internally consistent and compatible with the scale and nature of the operations planned. In this sense, Freeman (1994) perceives downsizing as a process of organisational change towards either *convergence* or *reorientation*. By convergence, downsizing implies incremental change and adaptation of a relatively long time span, whereby the current way of doing business is reinforced or '…a desire to do the same things better' (Freeman, 1994: 216). Reorientation, on the other hand, involves 'simultaneous and abrupt shifts in strategy, power distribution, structure, and control systems' or doing different things in the organisation (Freeman, 1994: 215). Here, downsizing is seen as organizational changes purposely initiated by management in order to contain costs, to enhance profit revenue, or to bolster competitiveness.

More often, downsizing is carried out at the organisational level as a cost reduction strategy when the firm encounters severe economic hardship. Cameron (1994: 192) defines downsizing as 'a strategy (intentionally) implemented by managers that affects (a) the size of the firm's workforce, (b) the costs, and (c) the work processes'. Accordingly, Cameron (1994) identifies three types of implementation strategies of downsizing: *workforce reduction, work redesign,* and *systemic change* (see Table 1). The *workforce reduction* *strategies* focuses mainly on eliminating the number of employees, while the *work redesign strategies* focuses on reducing work in addition to or in place of reducing the number of workers. In contrast, the *systemic strategies* stress not just changing the size of the workforce or the work, but also changing the organisation's culture and the attitudes and values of employees. Obviously, each type of downsizing consists of a set of different actions that can be executed in a different manner. For most downsizing firms, the three identified implementation strategies are not necessarily mutually exclusive since the primary goal of downsizing is to improve 'organisational efficiency, productivity, and/or competitiveness' (Cameron, 1994: 192). It can be implemented either as a defensive reaction to market share decline or as a proactive strategy to enhance organizational performance (Miles and Snow, 1978).

Table 1. Three types of downsizing strategies

	Workforce reduction	**Work redesign**	**Systemic**
Focus	Headcount	Jobs, levels, units	Culture
Eliminate	People	Work	Status quo
Implementation time	Quick	Moderate	Extended
Payoff target	Short-term payoff	Moderate-term payoff	Long-term payoff
Inhibits	Long-term adaptability	Quick payback	Short-term cost savings
Examples	Attrition, layoffs, early retirement, buy-out packages	Combine function, merge units, redesign jobs, eliminate layers	Involve everyone, simplify everything, bottom-up change, target hidden costs

Source: adapted from Cameron (1994): 197.

In recent years, organisational downsizing goes hand by hand with the managerial effort to pursue labour flexibility in organisations (Nelms, 1997; Smith, 1994, 1997; Asian Business, 1996), or 'becomes a way of life for managers as they continuously seek ways to do more with less' (Freeman, 1994:

234). Usually, management tends to downsize the number of permanent workers who are surrounded or replaced by a growing presence of a large number of contingent workers subject to market fluctuations. Subsequently, the constant hiring and firing policy toward the contingent workforce signals what can happen to the shrinking permanent workforce if one shirks in his job. The workplace reality is therefore increasingly segmented by a large proportion of the workforce that is either under-employed (part-time), or over-employed (for instance, core workers), or trapped in unfavourable job situations (e.g. temps). Frequently, peripheral workers function as a buffer for a shrinking number of core workers (Atkinson, 1984). Apparently, downsizing, when coupled with flexibility, will lead to intensified work, and tighter labour control.

Flexibility represents the ability to change or react with little penalty in time, effort, cost or performance (Upton, 1994). Here, flexibility of labour has numerical and functional dimensions. In brief, *numerical flexibility* is the ability of management to vary the amount of labour input at short notice. This can be done either externally by the use of temporary workers, or internally by modifying working time patterns to work pressure. *Functional flexibility* concerns the versatility of employees to work within and between jobs. This can involve either vertical integration of tasks (i.e. job enrichment) or horizontal integration (i.e. job enlargement). From the management perspective, both the types of labour flexibility serve to contain costs, to fully utilise labour, to accommodate fluctuations in production and service circles[5]. And they have become one of three primary objectives of downsizing: *higher productivity, better stock performance,* and *more flexibility* (Cameron, 1994; Dewitt, 1998; Mishra et al, 1998).

To sum up, organisational downsizing often occurs when firms encounter harsh economic climates. The purpose of downsizing is to cut off costs and boost organizational efficiency, competitiveness, and flexibility. Downsizing usually involves similar workforce reduction tactics such as transfers, outplacement, retirement incentives, and layoffs. Workforce reductions will then affect 'work processes, wittingly or unwittingly' (Cameron, 1994: 193), further leading to some kind of work redesign (such as restructuring or eliminating work, abolishing hierarchical levels, merging units, or redesigning tasks). All in all, downsizing is more or less related to reduction of the size of the workforce and reflects a shift of the frequently prevailing organisational ethic that "bigger is better". To put it differently, the business cycle risk is shifted to the workforce, as opposed to the past in which due to permanent employment, the economic risk was borne exclusively by the firm and its management.

[5] It is observed in the US and in the EU as a whole that the growing number of people are hired and let go on a contingent basis (OECD, 1998: 160-63; Smith, 1997).

The following mainly takes organisational approaches as developed by Cameron (1994) to examine downsizing in the two chosen Chinese state firms, in referring to other relevant perspectives when necessary. Before the analysis will take up the problem of downsizing in the two selected companies, a short overview on the economic reforms is needed in order to understand the economic problems and institutional constraints that shape the downsizing policy.

II. Downsizing in China's machinery industry

Background

Prior to 1978 market reforms, China's heavy industry expanded under a well-shielded environment (Child, 1994). The dominance of state-owned machinery manufacturing firms in the industry was particularly emphasised as it regarded as the mainstay in the economy (Murakami and Liu, 1996). Yet, from 1992 onward, the country's machinery industry encountered increasing challenges under a changed business environment. First, the state gradually reduced the scope and number of products regulated by state plans, while the majority of production was exposed to market transactions outside the state plans[6]. Second, the domestic machinery market was increasingly opened to international competition under the framework of the "*open-door*" policy. Subsequently, a large amount of imported machinery goods poured into China that took over 43.29 per cent of the domestic market during 1990-95 (IIER, 1997: 84). As a result, 30 percent of the Chinese machinery industry's capacity turns out to be idle in the sea of imported goods (IIER, 1997: 90). The excess production capacity in turn triggers off intense price competition that drove the profit margin of the industry to a history low record (IIER, 1997: 86). Thus, it is unsurprisingly that the growing number of SOEs incurred operational losses. The total amount of losses in state-owned machine manufacturing firms rose to RMB[7] 5700 million yuan in 1996, accounting for 39 percent of total profits and taxes they delivered to the state (IIER, 1997: 86).

In order to reverse the trend of the growing operational losses in SOEs, the government has taken many reform measures to rejuvenate the state sector. These include profit retention, profit taxation, the contract management system, and corporatization (see Table.2). Among the reform measures the implementation of the contract management system and recent corporatization

[6] By 1996, the government mandatory purchase order in large-sized power station manufacturing and some key components of car manufacturing accounted for less than 5 % of the total sales turnover (IIER, 1997).

[7] RMB: the Chinese currency Renminbi.

are particularly significant and still under practice in many large SOEs. They deserve a further discussion here before proceeding to examine the two selected SOEs in the machinery industry.

Table 2. Chronology of selected reform measures on SOEs, 1978-

1978-80	Launch of economic reforms and 'open door' policy
1982	Workers' congresses set up in 95 % of large state firms
1983	Profit retention and bonus payment scheme introduced
1984	Substitution of profit remittance for profit tax
1984	New law on enterprise management in urban factories
1985	Enterprise Responsibility Contract System introduced
1986-87	Labour contract and wage reforms put into practice
1988-92	Wide spread implementation of Contract Management Responsibility System
1990-91	Policy of economic retrenchment, i.e. contractual monetary and fiscal policy
1992	Deng Xiaoping's south China tour on renewal of economic reforms
1993	Establishment of modern enterprise system(i.e. corporatization), in line with socialist market economy. Labour contract coverage extended
1994	New Labour Law starting with 1995 promulgated.
1995	'Grasping large & medium-sized firms and let floating of small-sized firms' – policy formulated.
1996	Mergers, acquisitions, start as do cases of bankruptcy
1997	Downsizing and layoffs

Source: with reference to Warner (1995)

The Contract Management Responsibility System (CMRS) was formalised in the mid-1980, yet widely implemented in large SOEs only after 1987. It was essentially a kind of target management or management by objectives (MBO). The CMRS was designed to change the hierarchical bureaucratic relationship between the state and the enterprise into a contractual one in which the government and management are linked by the contract. It involves 'the specification of items such as the amount of profit remittance, investment and technical innovation targets and the tying of wage bills to total profits' (Fan, 1994). However, the CMRS failed, as this study will show, to deter management from pursuing their individual interests (e.g. through externalising operational costs with less or no distraction of depreciation costs). Frequently, it encourages short-term behaviour at the expense of long-term growth, as there was no hard budget constraint that had to respect (Pan, 1994).

From 1994, new approaches were sought for reforming SOEs, especially at local levels. These include mergers, leases, corporatization, worker and management buyouts, and bankruptcies (World Bank, 1997). These new reform measures were attempted to change the corporate governance structure: 1) to clarify asset rights, and assignment of liabilities; 2) to provide a reasonable balance of interests among owners, creditors, and managers. The former requires a clear separation: legally and operationally, between the government (as owner) and the firms (as business entities). The latter embraces a western corporate business system so that the owner can select a board of directors which, in turn, oversees the daily operations of the professional management.

These new approaches to reforming SOEs, however, pose a dilemma for the Chinese government: Those who could serve as professional managers know which assets or firms can quickest and at low costs turned into a profitable business. For this reason they will offer lease contracts for part of all state controlled industrial assets only. Subsequently the government succeeds in leasing out the most valuable assets, but gets stuck with those assets that can be turned into profitable business at high costs only – or for which there is no demand. The effect then is that the government owns fewer industries, something that is aimed at. The few in its hand are those which run the highest losses which need to be financed by the general taxpayer[8]. In addition, corporatization has also induced management to maximise intra-firm consumption by offering rewards and welfare benefits for all employees including themselves at the expense of outside shareholders and the state budget. In the end, state enterprise assets would gradually siphoned into private pockets, leaving the government to assume the liabilities for the worst cases (World Bank, 1997). This is a widely known phenomenon in Eastern Europe.

One often overlooked reason for the unsatisfactory SOE reform lies in the fact that most SOEs, especially in the heavy industry, tended to grow to a large size and embraced a comprehensive scope of social service functions (such as housing, hospitals, schooling, and kindergartens) (Murakami and Liu, 1996).

[8] It was reported that asset stripping and excessive wage compensation are widespread in Chinese state enterprises. A 1994 survey of 124,000 state enterprises found that asset losses and unaccountable expenses accounted for 11.6 per cent of the assets of the firms sampled. One estimate puts the annual loss of state assets at RMB 30-100 billion yuan, or 2-9 per cent of annual capital investment by state-owed units. Half of the new limited liability companies established in Sichuan and Shanghai in the past few years are in the financial sector, which suggests the widespread creation of "shell" companies to drain assets (World Bank 1997).

These social and welfare provision activities considerably constrain the enterprise to realise its commercial goals in the face of competition from non-state firms (Wood, 1994). Such social function characteristics make the application of any reform measures particularly void in this industry. Without transfer of pension, health, and education obligations from state firms to government bodies, state firms cannot be turned into competitive ventures. Recently, some local governments are taking major steps to relieve enterprises of these social burdens by taking them off[9]. But such developments are fragmented, and uneven across regions and industries. In most cases, the firms are still strangled by excess workers that are tightly cemented in their employing organisations. Although a labour contract system was introduced in 1984, management autonomy to alter the size and composition of the workforce is still circumscribed by internal and external constraints in the firm. SOEs are still responsible for re-deploying their surplus labour by creating new jobs for them or pay them wages off position (Fan, 1994). This personnel system restricts the enterprise management to adjust manpower, and to develop labour flexibility.

Apparently, downsizing is needed to sort out redundant workers in SOEs. Downsizing whether initiated by mergers or not is seen as an effective way for getting rid of excess labour. The central government particularly advocates downsizing as an effective means to raise labour productivity. Thus, when the Congress of the Communist Party in 1997 claimed to overhaul the management of SOEs and made them profitable within the century, increasing productivity by putting an end to the omnipresent overstaffing stood at the core of the discussion. Prime Minister Zhu Rongji too asserted in his inaugural speech at the National People's Congress (1998) that laying-off redundant workers would be one of the main reform measures toward SOEs. He articulates three concrete steps for downsing: *laying off so as to divert redundant workers out*; *reducing personnel so as to increase efficiency*; *and implementing re-employment project within the enterprise*. In response, governments at the local level quickly started to force the SOEs under their jurisdiction to implement the downsizing strategy.

This reform policy background should be kept in mind as the two selected SOEs are presented in the following section.

[9]Some municipalities in Shanghai, and in Wuhan, for instance, are pooling pension obligations across firms and earmarking payroll taxes for pension, unemployment, and health insurance. Some local authorities are taking over schools and hospitals previously run by enterprises. Another way to reduce the budgets necessary for social benefits is to reduce housing subsidies by either raising rents or selling company's houses to employees (Beijing Review, 1988).

The two downsizing companies investigated

Case study 1: the BG. The contemporary BG is a specialised industrial boiler manufacturer that was originally set up by the central government in Wuhan in 1956. It had been a state-owned enterprise before it was restructured into a quasi-standardised corporation in 1994. Four years later, i.e. in early 1998, one of the BG's thirteen sub-companies was split off to form a joint stock company with foreign partners consisting of investors from Hong Kong and France, as well as of seven domestic financial investment companies as a joint domestic partner. It was hoped that the newly formed Sino-foreign joint venture would firstly bring in sophisticated technologies and managerial know-how to consolidate its market position and, secondly enjoy the favourable policy applicable only to foreign investors. As required, a new internal governance structure in the newly formed joint venture will have to be created in light of the *company law*[10]. By the time of investigating, the new governance structure was not yet implemented. The rest of the BG will, however, remain under the old governance structure, i.e. being subordinate to the local Machinery Bureau.

The main products made by the BG are special industrial boilers of various types, and boiler-related components. These special industrial boilers are mainly supplied to equip domestic power generation stations, sugar processing factories, cement manufacturers, and paper manufacturers, with few exports to the third world countries in South Asia, Latin America, and Africa. In 1997, the BG had sales turnover of RMB 680 million yuan, employed 6,100 workers. The sales revenues accounted for 15-16 per cent on domestic boiler markets, down by 10 per cent over the past five years due to intensified competition since 1992. The BG is now left behind other three leading domestic boiler manufacturers in China.

Case study 2: the WM. The WM is a machinery manufacturing company that was established by the central government in Wuhan in 1958. Since then it had been the largest state owned heavy machine tool manufacturer in China under the parallel administration of the local Machinery Bureau at both the Province and the Municipality level. It did not change its ownership and governance structure until 1996 when it was restructured into a corporation in which the liabilities to state banks were turned into equities of the company. Essentially, it remains a state firm without significant changes in property rights in the sense that ownership titles were switched from one state agency (Machinery Bureau) to another (state banks).

The core business of the WM is manufacturing and supplying mother machine tools and lathes of various types to industrial clients that range from machinery, mining, metallurgical industry, transportation, energy resources, and aerospace

[10] The company law was promulgated in 1993 and came to effect in July 1,1994.

industry. These machine tool products are mainly supplied to meet domestic demands, with some product and components exports to international markets, mainly in the Middle East, and South Asia. Some of its main products (such as a 16 meter-long super-sized lathe) are of strategic importance in technically equipping other industries that require state financial support, i.e. subsidies for maintaining the production. Due to its unique nature of the products in the national economy, the state still provides necessary financial support, i.e. subsidies, albeit declining. Meanwhile, the WM is under great pressure to become a profitable business entity.

The WM has 5 processing plants, 4 assembling plants, a heating treatment plant, and two auxiliary service subsidiaries that all employed 4,600 workers in 1997 (while 7,441 employees on the payroll). The sales turnover reached RMB104.42 million yuan in 1997, yet its balance sheet was registered with a deficit of 17.14 million in the same year. The operational loss was mainly ascribed to losing of domestic clients who turned to buying imported machines[11] since 1992. As a result, the WM remained persistently in the red for five years since then. Reducing the scale of losses thus becomes a central task of management under the CMRS that was signed between management and the local government supervisory agency.

The above descriptions clearly shows that the two studied firms faced increasingly market competition and government pressures for efficiency gains before they moved to downsizing.

The process of downsizing implementation

In the face of market competition and government pressure, both the BG and the WM employed more workers than productively necessary. Initial effort to reduce redundant workers in the BG was pushed ahead in the early 1995 through encouraging early retirement among elderly workers. In the WM, attempt to cut down the overstaffed workforce was made in 1992 as the 'optimal labour reorganisation' scheme (Warner 1995) was introduced in the company to sort out redundant workers. Yet, a large-scale of collective layoffs occurred in both the companies in 1997 only when the central government called for downsizing as a means for efficiency improvements in the state sector.

Need for manpower downsizing was further justified by the use of certain efficiency criteria for personnel required. The BG claimed to apply five criteria in calculating the scale of redundant workers for laying off in 1997. These criteria concern: i) efficiency of working hours in relation to total output; ii)

[11] The share of domestic machinery products fell to 25% in 1997, as said by the personnel manager interviewed in the company.

empirical calculation; iii) responsibilities and duties (e.g. in personnel department); iv) position-matches (such as cargo drivers that can be decided by the number of trucks); v) ratio determination (such as a fixed proportion of cooks to total number of employees). In this way, 1,201 workers were made redundant and laid off in the company, that accounted for 20 per cent of the total employees before downsizing in 1997. In the WM, the scale of layoffs was determined in light of production tasks in relation to market demands, by taking account of projected profits and workload, with reference to the average industry output. Here, several indicators were claimed applicable in calculating the number of employees needed after downsizing. One most important indicator applied was the aggregate profit index on the industry average. The profit index was then discomposed into each plant where the entailed number of employees were calculated out and selected. In this way, 2,233 workers were calculated as redundant employees subject to laying off, accounting for 30 per cent of the total employees before downsizing in 1996 (see Table 3).

Table 3. Workforce Reduction in the BG and the WM in 1997 (in person)

	Pre-downsizing	Post-downsizing	Laid off workers	
	employee size (1)	**employee size** (2)	**number** (3)	**as % of (1)** (4)
BG	6,100	4,899	-1,201	19.7%
WM	7,441*	4,600	-2,233	30.0%

Note: *the number includes 608 old employees that reached legally retired age in 1997.

Despite the claimed economic criteria applied in sorting out redundant workers, identifying target workers for leaving poses particularly challenges to management. Not only have workers formed psychological contracts with each other during the past stable working environment, but also the applied criteria for manpower cutting are hard to operate objectively. In practice, two types of vulnerable workers were subject to laying off during downsizing in both the companies: 1) *elderly workers*, and 2) *poor performers*. The former was based on the employee's age or length of service, whereas the latter had its ground in individuals' job performance or disciplinary behaviour. Any employee who met one of the criteria set out was encouraged to leave. While the ultimate decision to lay off senior workers was subject to department managers' deliberate calculation, taking into account most likely adverse effects of layoffs on production.

Some government policy restrictions were imposed on management when identifying layoffs in the both companies on social grounds. First, according to the government layoff policy, a married couple, when working in the same company, would not be laid off simultaneously. Even if one partner was already laid off in other state companies, the spouse should be exempted from laying off in the company under the same jurisdiction. Second, retired army veterans were exempted from downsizing even though they were unqualified and poor in performance during downsizing. This type of personnel was assigned into the state sector by the local government as political tasks that are only applicable to state companies. This can be seen as continuity of the past personnel legacies in the state sector. Particularly in the WM, the non-layoff policy was also extended to those rural recruits who were employed under the so-called *employment inheritance system* (see Korzec, 1994). This inheritance system holds in the WM that the father, who retires early and settles back in the countryside of his origin, can appoint one of his adult children to take his employment in the company.

During downsizing, elderly workers were most likely to be targets of sacking, although key elderly employees with specific skills were persuaded to stay for a longer service. In the BG all those aged over 50 (for the male) and 45 (for the female) were subject to laying-off during downsizing, while in the WM the targeted elderly workers were five years older than their counterparts in the BG. In both the companies investigated, aged workers got early retired, either ten years earlier (in the case of the BG) or five years earlier (in the case of the WM) than the legally set retirement age. Poorly performed young workers were sacked as well, but they made up minority. In the BG, for example, 88 per cent of the layoffs (i.e. 1,056 elderly employees) were early retired, the remaining 12 per cent (i.e.150 young workers) were laid off as vacancy waiters. The same trend was reported in the WM where 75 per cent of layoffs took the form of early retirement, and the remaining 25 per cent as vacancy waiters. Eventually, laid off workers were among one of the four types of employees: 1) the elderly; 2) the physically weak; 3) female during child breast-breeding period[12]; 4) poor performers resulted either from their poor adaptability or persistent undisciplined behaviour (see Table 4). Not only elderly and weak worker became the target of downsizing, the female at the time of child breeding, as well as the injured were not exception from downsizing. Except for the first three types of laid off workers that can be objectively justified during downsizing, the last one is subject to substantial management personal judgement and arbitration.

[12] Child-breeding female workers were temporarily laid off at the time of child breast-breeding. According to the state regulation concerned, childbearing women are entitled to a leave of absence for 2 years, with the payment of 75 % of their full-time wage rates by the employing company.

Table 4. Criteria and compensation for layoffs in the WM & the BG in 1997

Criteria for laying off			**Layoffs & compensation**		
Criterion	WM	BG	Forms of layoffs	WM	BG
1) performance	Under-performed, unskilled, undisciplined		Vacancy waiter	120-160 (RMB per month)	180-300 (RMB per month)
2) age & seniority	$\geq$50 for female or 55 for male	$\geq$45 for female or 50 for male	Early retirement	Lower than pensions	600 (RMB per month)
	$\geq$20 for female, or 25 for male (i.e. years of service)				
3) physical	The sick, injured, disabled employees		Early retirement	Living on special social security funds	
4) sex	Female workers during the child breast-breeding		Vacancy waiter	75 % of the full job wage	

Accordingly, layoffs took two forms: *internal early retirement* and *vacancy waiters.* The early retirement applied to senior employees or the elderly workers who reached a certain age limit that was yet lower than the legislatively set retirement age standards. In other words, both the companies adopted '*first-in-and first out'* downsizing strategy towards senior employees who had served for 25 years (for the male) or 20 years (for the female). It should be noted that the elderly worker and his length of service might not exactly intersect at the same age, although both were most likely close to pensioners' age set by the law. The second form of layoffs is vacancy waiter. As the term tells itself, vacancy waiters are assumed be re-employed preferentially by the company as long as vacancies arise. Moreover, the downsized companies are obliged to help vacancy waiters in finding a paid job elsewhere.

In the absence of social security systems, the two downsizing firms had to provide certain amount of living expenses for layoffs. The amount of living expenses provision was differentiated, however, between early retirement and vacancy waiters. In both the studied companies, the early-retired workers were better compensated than the vacancy waiters. In addition to receiving standard compensation by their company, the early-retired employees could receive extra subsidies to offset inflation. When they reach the legal age of retirement, they will be shifted to newly created pension agencies that are administered by the local government. Before they become real pensioners, the early-retired workers would be on the payroll list of the company that remains obliged to pay their pensions. In exchange, the early-retired workers disclaim their rights to reemployment in the company. In other words, the company had to buy out superfluous employment positions at the cost of continuing to pay living expenses and pensions for the early-retired workers.

In comparison, the vacancy waiters were relatively young and physically strong (e.g. a youngest one aged 21 in the BG), they are expected and encouraged to take up paid-jobs elsewhere as a complementary source of income. Since they were assumed as laid off workers temporarily and are supposed to be re-employed by their company in the future, vacancy waiters (including breast-breeding females after expiration of the paid absence of two years) are therefore insufficiently compensated for leave (see Table 4).

It should be noted that all the laid off workers were not directly released to markets. Instead, they were all kept inside the company as required by the government due to the lack of social security system in society. Except for those who found jobs elsewhere after downsizing, most of the layoffs sunk into the company's internal labour pool and live on living expenses paid by their company for at most two years[13]. As a condition for the receipt of living expenses, both types of layoffs are obliged to contact their employer once a month so that their company is informed whether there is change in their employment status.

In addition, vacancy waiters living on their company were required to register with the local Labour Bureau for obtaining an officially endorsed unemployment card. With an unemployment card, layoffs are entitled a priority for reemployment in the former company or elsewhere, or pursuing self-employment (Beijing Review, 1998). Moreover, all the layoffs living on company payments also need to pay for their individual parts of the pension premium, unemployment insurance, and housing funds[14]. The company would keep on paying the remaining parts for them, i.e. a certain proportion to the total wage bill in the company set by the local government. Obviously, downsizing in the absence of social insurance support poses tremendous difficulties to management in executing the downsizing in the firm.

At first sight, downsizing seemingly proceeded more deeply in the WM than in the BG in terms of layoff scale and percentage. With a close look at the workforce composition after laying off, it is found that downsizing in the WM

[13]After two-year dole on the company, layoffs will be shifted out to unemployment insurance agencies administered by the local government.

[14] The proportion of individual payments to these funds was set at 3% of their monthly wage incomes received from their company in 1998.

failed to touch managerial employees as much as was the case in the BG. A higher proportion of managerial and administrative employees remained in the WM than in the BG after downsizing (see Table 5). In the BG, elderly managerial personnel were also subject to downsizing. It was stipulated that middle-level managers aged over 56 during downsizing were compulsorily left off their positions, either as non-managerial staff or as early-retired workers. Consequently, 150 elderly managerial and technical personnel were laid off, accounting for 15 per cent of the total layoffs in 1997. Among the sacked managerial personnel 50 middle managers took the form of early retirement. By so doing, downsizing on other types of personnel was perceived much easily to carry out with less resistance from workers.

Table 5. Workforce profiles after downsizing in the WM and the BG in 1997

	WM		**BG**	
	Number	%	Number	%
Production workers	2,000	43.48	3,000	61.24
Technical personnel	403	8.76	300	6.12
Managerial and administrative	1,002	21.78	405	8.26
Auxiliary workers	1,000	21.74	650	13.27
Marketing & service	395	4.24	544	11.20
Temporary workers*	110	-	-	-
Total employees on jobs	4,600	100.00	4,899	100.00

Note:*temporary workers were not counted on the payroll.

Clearly, the *once-and-for all* workforce reductions in both the companies reshape the profile of the remaining workforce after downsizing action. In the BG, almost all the elderly workers were laid off, with the remaining workforce becoming much younger (averaged at 35) than before downsizing. The same change also occurred in the WM, only with a slight age difference imposed on elderly employees between workers and managerial cadres[15]. While all the old workers aged 50 for the female and 55 for the male were called for early leave, managerial cadres retired early at the age 55 for the female and 60 for the male. In consequence, the remaining workforces become much younger. As one of the interviewed personnel managers points out:

[15] The differentiated treatments to early retirement can be explained by the legacy of old personnel system by which employees were divided into workers and cadres in line with the bureaucratic hierarchy (see Korzec, 1992).

"Right now, it is rare to find elderly male workers aged over 50 in our production plants, except for a few elderly key workers with critical skills. None of the female workers aged over 40 is working in the first line of the production. Young workers become the overwhelming majority".

In summary, the two state companies studied are operating under the increasing pressure of market competition within the changed context. They share similarities in governance and market declines while differing in employment and compensation. The main criteria used for the selection of layoffs were age and performance, supplemented by physical state and sex. Some other social and political criteria were applied as well to prevent specific groups from downsizing policy. There are some overlaps among these imposed criteria, with each one being related to others in some manners. Layoffs were most likely among those elderly workers with low skills and poor physical conditions. Yet, young employees were not exceptional if they were identified by management as the unskilled, and the undisciplined, or child breast-breeding female during downsizing. In either case, laid off workers have a poor labour market prospect after downsizing. This can explain why most of the layoffs were kept in the company's internal labour market pool instead of releasing to markets, although both the companies had incentive to terminate labour relations with layoffs by strongly encouraging vacancy waiters, for instance, to find jobs elsewhere.

Effects and payoffs of downsizing

Besides quick workforce reduction, the two companies investigated receive immediate payoffs in labour productivity, work organisation, and corporate structure. By referring to Cameron's (1994) downsizing framework outlined in the first part of the paper, this section will examine these impacts in sequence.

Improved labour productivity. Improvement in labour productivity was achieved immediately after downsizing was executed in 1997. A salient upturn was registered in both the companies in terms of sales turnover and profits and taxes relative to the reduced workforce over 1996 and 1997 (see Table 6). When assessed in terms of sales turnover per worker, the WM saw a noticeable rise of 67 per cent, while the BG received 40 per cent of increase over previous year.

The extent to which labour costs of production were reduced with mass layoffs, higher labour productivity could be a logical result. Empirical findings from the two cases confirm that the shrunk workforce after downsizing worked with the same number of machines generated more outputs than the past. Although labour productivity improvement measured by these two indicators is open to question, it is clear that efficiency gains were achieved in both the firms after downsizing. The interviewed managers in the two companies all acknowledged that downsizing was indispensable for efficiency improvement.

Table 6. Labour productivity improvement after downsizing 1996-1997

	BG			WM		
	1996	1997	Change	1996	1997	Change
	(1)	(2)	(2) – (1)	(3)	(4)	(4) – (3)
Sales turnover (million yuan)	600	680	+80	101.06	104.42	+3.36
Profit and tax (million yuan)	25	30	+5	-19.53	-17.14	+2.39
Employees (in person)	6,100	4,899	-1201	7,441	4,600	-2,841*

Note: * The number includes 608 newly retired workers living on external pensions administered by the local government.

Increased flexibility in work organisation. With downsizing substantially reduced workforce, flexibility of the remaining employees is sought and achieved in the two firms investigated after downsizing. Currently, work is flexibly organised along the functional or numerical dimension, and employees are flexibly staffed to take job tasks on production need. Particularly, laid off workers are occasionally re-employed as a personnel buffer against production fluctuations. Here, several forms of flexible working practices can be observed in the two downsizing companies (see Table 7).

Table 7. Summary of flexible working practices achieved in the BG and the WM after downsizing in 1997

Flexible working practices	**BG**	**WM**
Part time & over time working	+	+
Contingent labour	+	+
Teamwork	+	+
Job enlargement	+	+
Job rotation	+	+

Part-time and overtime working

Although both the studied companies follow five working days per week as required by the Labour Law, part time and overtime working are under wide practice in response to product market fluctuation after downsizing. Often, extra-working hours are required of the existing workers during a production peak, even though an expected extra payment is not ensued as expected. When production turns to a slump as the result of a drop in market demands, less working time (such as half a day working) applies, leading to less wage incomes than usually to employees. Sometimes, idle working time during the business slump period is spared to do cleaning or simple maintenance tasks (such as cleaning machines). This type of work is beyond the scope of the job description, and was undertaken by temporary workers in the past. Here, flexible-working arrangements are dictated by production requirements or market demands. It often goes together with flexible payments based on output-related performance.

In the WM, an *interval working shift* is introduced to adjust personnel to work task fluctuations after downsizing. This form of flexible work arrangement is mainly practised at the workplaces such as in repair plants, and in assembling plants, where work tasks are contingent on unpredictable demands of clients. If work is performed by a team, whose members' performance is hardly metered individually and separately identified from others, an interval working shift applies among all team members on an equal footing to avoid further streamlining of redundant members. This kind of interval working shift takes turn every half a year or a season, thereby each team member taking a turn for rest and work. Essentially, the interval working-shift turns out to be a kind of part time working practice. It is indicative of more personnel remained than necessary in the workplace that should be laid off from an efficiency perspective.

The internal labour pool as a personnel buffer

As indicated, laid off workers in both the companies were not immediately released to external labour markets[16] during downsizing. Instead, they were kept inside and administrated in an internal labour pool in the company's labour market. In the WM, 500 layoffs were registered with the company's personnel department and sunk in the internal labour market pool. Layoffs in the internal labour market pool are occasionally used as a personnel buffer working part time against production fluctuations. This has become possible because the downsizing company continues to provide basic living expenses to laid off workers as long as they remain unemployed. In return, layoffs are obliged to

[16] Layoffs from the company's collective plants are not entitled to entry into the internal labour pool since they were never counted as state employees by their employment status.

offer temporary service to the company as a personnel buffer. The functioning of the internal labour market pool as personnel buffer should be assessed with caution. First, the set-up of internal labour pool was mainly to administer layoffs that could otherwise be released to the labour market in the presence of well-developed social security systems. Second, not all of the layoffs are willing to provide temporary personnel service for their company. Temporary workers are continuously hired from external labour markets (in the case of the WM) to undertake some unexpected tasks or dirty work that is unwillingly taken by layoffs.

Teamwork

Teamwork emerges in both the companies as some job tasks are sharing horizontally across prescribed job boundaries after downsizing. Employees are strongly encouraged to take more responsibilities and work in co-operation with their colleagues in a team. To some extent, flexible work practices of this type can be ascribed to change in rewarding systems that embrace incentives for task sharing. Management in both the companies acknowledges that workers are willing to take more work tasks, because more work tasks imply higher income under the performance-related payment system.

Job enlargement

Job enlargement is now experimented in certain categories of jobs after downsizing. In the WM, for instance, bench workers or fitters are encouraged to undertake a job of grinders, while in the BG, repair workers take the job of bench workers or fitters. Therefore, job descriptions are no longer narrowly defined as the demarcation line between job boundaries becomes increasingly blurred. A limitation on job enlargement is that most employees lack necessary skills to take up a enlarged job. Such skills require extra training that is often unavailable in the two studied companies[17] after downsizing. Another limitation on job enlargement is that most job enlargement arrangements are overwhelmingly restricted to job-related components, without the empowerment of workers with respect to planning, maintenance, and quality control. Very often, managerial authority is still concentrated in hands of the functional department management.

Job rotation and internal mobility

Another significant change in work organisation is that employees are willing to undertake jobs across plants or departments. This job rotation across different functions become possible because most attractive job positions are now open

[17] The BOLILER-Group plans to train 100 workers to enable them cope with versatility of multi-skills in five years after downsizing.

to employees for competition based on their skills and past performance. For instance, 40 middle managers aged 50 were laid off from their managerial positions in the BG in 1997 that were then open to competition for new staffing from within. Along with job rotation, there is a rise of internal labour mobility across functions and administrative hierarchy. For instance, in the WM, an excellent outperformed worker can be promoted to the plant's supervisor, and unqualified technical personnel are assigned a production job in plants. This represents a big stride in breaking job ownership that prevailed in work organisations. Most significantly, laid off managers in the BG are willing to take up new jobs in production plants. Obviously, job rotations along a downward mobility across functional departments become acceptable in the downsized companies as long as it is required by production requirements.

In summary, functional and numerical flexibility is sought and, to some extent, achieved among the remaining employees after downsizing. Moreover, additional numerical flexibility is also explored among laid off workers that sunk into the company's internal labour market pool. As shown above, flexibility remains obviously primitive and, to some extent, is restricted by workers' insufficient skills. Thus this points to the need of extra training for upgrading employees' skills.

Intensified work and tightened labour discipline. Along with flexibility at the workplace, work is intensified and labour control tightened. Three work-related results are achieved after downsizing, according to personnel managers interviewed in both the companies. These effects concerns: shirking behaviour, labour discipline, and values regarding work.

First, the phenomenon of work shirking has considerably diminished, as the prevailed '*one job shared by three while no body taking responsibility'* was effectively eliminated by downsizing. Instead, each employee is given a separate assignment and responsible for the ultimate work results. Intensified work can in part be attributed to flexible compensation that links payments more directly to individuals' performance after downsizing. It is also partly ascribed to the threat of job-loss pressure suspending on the workers that elicit their commitment to work. The interviewed personnel manager seems very happy with this result, he said: "our employees are striving to compete for more work tasks from their colleagues. Since more work will bring them more bonus payments in a piece rate."

Second, a significant improvement is recorded in labour disciplines. As compared to the past, employee absenteeism has almost disappeared immediately after downsizing. Instead, all the remaining employees are punctual to work, and the incidence of early leave without a prior notice has become the thing of the past. Particularly, one's duty negligence caused by his arbitrary absence from the job during the working time is eliminated. As the threat of an another round downsizing is suspending, most of the remaining employees work under pressure. They recognise that their personal fates are closely linked to the prospect of the company. The personnel manager comments on this change:

Our workers treasure and value their employment positions much more than ever before. They are often told that their employment opportunities were bought out at the expense of their colleagues who now remain unemployed. They know how costly unemployment would be if they had not worked hard. If there is no job tasks for employees, they will turn to learning additional skills that might be required some day in the company.

Third, some obvious changes have occurred in employees' work values with respect to differentiated rewarding and job choices. Wage differentials are acceptable among employees that reflect differences in individuals' performance. And workers are willing to perform different job tasks assigned to them, regardless of employment status associated with job tasks. Right now, the entire workforce is called employees, without a distinctive status divide between workers and cadres, which only remains visible in personal files[18]. Most noticeably, laid-off workers start to undertake some jobs that were left to temporary workers in the past. In the BG, temporary workers are no longer hired any more after downsizing. This is a contrast to the WM where hundred temporary workers are employed continuously. Another positive by-product of the downsizing is that most of the employees have stronger wishes for acquiring new skills either via training or by self-learning during spare time.

In short, downsizing enables management to experiment with various forms of flexible practice at the workplace. With flexibility sought by management, work becomes intensified and labour disciplines tightened.

Change in corporate structure and business orientation. Most significantly, downsizing led to restructuring of organizational structure in both the companies investigated. It is observed that the two downsizing companies either re-configurated their corporate structure or re-oriented their business focus or scope, or the combination of the both. Behind the corporate restructuring is the penetration of market pressure into the entire company.

In the BG, the corporate organisation underwent drastic restructuring after downsizing. First, quasi-market price mechanisms were introduced into the corporate internal transactions so that all of the company's 13 subsidiaries should become financially accountable. Most remarkably, one of the 13 sub-corporations was split off to form a joint venture[19] with foreign investors

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[18] Every Chinese adult has a personal file that records his/her history and administered by the state agencies.

[19] Subsequently, the shares of the newly formed joint venture will be listed on Shenzhen Stock Exchange in B share (i.e. in foreign exchange) open to overseas investors.

immediately after downsizing in the early 1998. The joint venture was successfully created largely because: 1) the BG had enjoyed an advantage of its products in environmental protection[20], and 2) it had a stock of advanced equipment and machine tools imported from Germany. By forming a joint venture with foreign investors, the BG is entitled to receive preferential treatments of Sino-foreign joint venture policies (e.g. income tax rate levied on joint-venture is as half as that of on the SOE, i.e. 15 per cent as opposed to 33 per cent.

Second, each subsidiary has established a marketing department responsible for getting more market orders on competition. Accordingly, all internal activities are justified for accountability on the market ground. The parent company, i.e. the BG, no longer maintains a marketing department. Instead, a multi-functional management centre has been set up to co-ordinate internal and external transactions of subsidiaries. Subsequently, the remaining departments are accordingly required either to change their functions and orientations or had to be demolished. For instance, the technical and engineering department (staffed with three hundred employees) was enhanced in function by integrating R & D with quality control. Some of R & D activities were contracted out, or jointly undertaken with external experts invited as consultants. A personnel department and a financial management are centralised in the parent company, namely the BG.

Comparatively, the WM failed to launch dramatic corporate restructuring as in the BG during and after downsizing. With persistent losses incurred in operations, the WM reoriented its business strategy toward focus as well as diversification (see Porter, 1985). A focus business strategy was reformulated with the aim of consolidating and refining the core business in machine manufacturing, while externalising auxiliary activities from the main body of the organisation. One noticeable stride with respect to diversification was to enter into the service sector for export and import trading. The move to diversification was based on the WM's autonomy over export and import granted by the central government since 1987. Such the autonomy over international trading is not common to the majority of manufacturing enterprises in China. With the rights to exports and imports, the WM hopes to spur revenue growth through the access to international markets. Here, the diversification strategy is essentially built on deliberate management efforts to exploit the company's internal comparative strengths.

Accordingly, the corporate structure was redesigned: First, the core business was separated from the remaining, with the main body of the WM concentrated

[20] For instance, its industrial boilers could use sugar stalks as fuel materials, instead of coal. In addition, the products of the BOLILER-Group were designed by Germany, Britain, and Japan and mainly supplied to growing domestic markets.

on machinery manufacturing. Meanwhile, the auxiliary body that mainly comprises trading, plus service facilities (such as company-run kindergarten, employee hospital, canteens, bathing rooms, restaurant and hotels) were all split off and operated as semi-independent accounting entities. Then, all the personnel and staff were realigned with the changed corporate structure through job-skill matching and relocation based on internal competition for available positions. By doing so, the personnel size in each department was streamlined and internal personnel mobility prompted. Obviously, the mixed strategy combining business focus and diversification was pursued in order to avert risks of over concentration in one industry after downsizing. Such action should also be seen as management' attempts to reverse persistent operational losses of the company in the machinery industry.

Although differing degree of corporate change and orientation in the two studied companies, it is clearly that corporate restructuring was driven mainly by management's attempt to explore internal comparative strengths that each downsizing company possesses within constraints of business environments. One change common to the both companies is that market pressure has penetrated into the entire corporate organisation; another change is that the use of labour is increasingly flexible and linked to organisational efficiency.

III. Summary and Discussion

The downsizing processes documented in the two companies investigated above clearly share some fundamental characteristics in common (see Table 8). First, both the firms belonged to large-sized manufacturing companies in terms of employment by the Chinese standard. Second, they both were initially set up by the central government in the same city and almost around the same year in the 1950s. Thus, they long operated under the state planing system, and inherited identical institutional legacies from the past. Thirdly, they both were corporatized recently into joint stock companies and exposed to market forces. Yet, the state (or via its agencies) retains the right to dispose of the property while encouraging private actors (e.g. in the BG) to exercise the agency's rights as shareholders. Fourthly, both firms are currently operating under the increasing market pressure, and no longer enjoy the guaranteed sales channel to domestic clients regulated by state plans. With the state product quota system demolished in the 1990s, they had to seek orders facing competition. From 1992 onward, both the companies adjusted its excess production capacity to their shrinking market shares, and eventually stepped up to downsizing in 1997.

Despite similarities, some salient differences stand out upon a close check. First, the two studied companies had different employment systems during downsizing in 1997(see Table 8). The BG adopted a legally recognised *labour contract system* that covered 100 percent of the workforce, while the WM implemented an employment-specific *labour agreement* that lacked a legal enforcement base when breach occurred. The difference in employment systems implies, as was shown above, different job security or freedom left for employees during downsizing. Although both the types of employment systems marks a departure from the lifetime employment, management's discretion over

Table 8. Characteristics of the BG and the WM

	BG	**WM**
Age and location	1959, and Wuhan urban centre	1958, and Wuhan urban center
Ownership & governance	State-owned, and corporatized recently with participation of foreign investors	State-owned, and corporatized recently with state being a majority controller
Products	Industrial boilers of special types	Heavy machine tools, lathes of various sizes
Sales revenues (1997)	RMB 680 million yuan	RMB 104.42 million yuan
Profit and tax (1997)	RMB 30 million yuan	RMB -17.14 million yuan
Product markets	100 percent domestic, with market share of 15-16 %	Mainly domestic, with limited exports to the Middle and South Asia
Number of employees (1997)	6100 on the payroll, 4900 on working positions	7441 on the payroll, 4600 on jobs
Labour contract coverage	100 percent coverage, with varying duration	Without individual labour contracts except for a collective one
Employee income (on Average in 1997)	RMB 9600 yuan for employees on jobs	RMB 6000 yuan for employees on jobs, 3300 yuan on the payroll
Wage system and Compensation practices	Post, skill, service, bonus, plus subsidies	Post, skill, and service, without bonuses

personnel recruitment and selection is impinged upon by continuity of the government administrative labour assignment.

Second, remuneration differed markedly. Although both the companies adopt a similar post/skill wage system in which job position and individual's skill carried main weights, the annual incomes per employee in the WM was below two-thirds that of in the BG in 1997(see Table 8). The lower remuneration level in the WM was attributed to the absence of bonus payments to employees, which was linked to persistent operational losses in the company. In contrast, higher remuneration levels allowed management in the BG to implement internal wage differentials that could be high as RMB 1000 yuan between production workers and non- production workers. In the WM, wage differentials among employees were kept as low as possible because of already lower remuneration on the whole. The top manager interviewed acknowledges that the average annual wage incomes remained unchanged since 1994. Therefore, real incomes of the WM employees were on the decline if considering inflation during that period of time. Accordingly, noticeable difference exists in the compensation of layoffs between the two studied companies, as shown above. In general, layoffs were better compensated in the BG than in the WM, just corresponding to the different wage incomes as rewarded to the remaining employees in both the companies. This was so because the downsizing companies had to compensate layoffs out of its own wage funds that were linked to the firm's performance. The compensation was particularly lower for vacancy waiters in the WM. As the personnel manager argues in the interview, "when workers on the job could not be rewarded sufficiently, let alone to ask for decent compensation to laid off workers."

Thirdly, some changes occurred in corporate structures of the two studied companies during and after downsizing. The changes, as revealed above, however, penetrated into the two downsized companies unevenly and differently. While the BG pursued an out-sourcing strategy by seeking a joint venture with foreign investors, the WM adopted an in-ward perspective on exploring its internal comparative advantage by separating its core business from the remaining. In the former case, the entire corporate structure was reconfigured and realigned to some extent after downsizing. In the end there was an enhanced accountability among the subsidiaries, both financially and managerially. For the latter case, namely, the WM, the corporate structure was streamlined and de-coupled, with a complementary body split off the business core. There was no empirical evidence on changes at the level of functional departments.

Despite obvious achievements outlined above, downsizing failed to resolve all the problems confronted the two studied case companies. In the area of human resource management (HRM), downsizing has given rise to new problems, or reinforced existing problems.

One of such problems is the rising labour turnover that leads to the drain of skilled workers from the organisation during and after downsizing. In both the studied companies, the most mobile workers were found among the newly recruited employees who were either young technical personnel, or managerial staff. Comparatively, production workers and administrative staff remained stable. Since voluntary leaves tended to be relatively skilled young employees with a high education attainment, there are certain rules and procedures that govern voluntary leaves[21] in both the companies before and during downsizing. For instance, not all the voluntary leaves were encouraged. Conversely, most of the voluntary leaves were often persuaded to stay with their companies if their skills and expertise is particularly needed in the organisation. Despite this, loss of skilled workers was on the rise. In the WM, for instance, the number of technical employees dropped from 1,100 in 1988 to 403 in 1997. The majority of technical employees left the company just before downsizing started. And most of them took voluntary leaves and found a higher paid job in the private sector. Here, downsizing served as a driving force that pushed away key talented employees out of the organisation. The loss of best people led to the shortage of technicians in the WM. This, in turn, severely affected its product quality and competitiveness.

The same brain drain problem is observed with the early retirement scheme. Particularly, some old employees with specific skills are most likely willing to become early retired. There are two key reasons for unwanted leave: First, the income difference is not more than 25% between those working and those without; second, there might exist attractive employment opportunities elsewhere for them to take up immediately after early retirement. By doing so, they increase their total monthly income. Thus, it is difficult for the company to predict what types of employees will take advantage of an early retirement offer or buy-out package. This means that it is uncertain of what type of relevant knowledge, what organisational memory, and which critical skills will be lost to

[21] Voluntary leaves have to pay their individual part for pension premium, and other compulsory funds set by the government. The type of voluntary leaves was called ‘post reservation while stopping wage payment’ by their previously employed organization. Some of the voluntary leaves maintained labour relations with their company in name and paid fees (individual pensions 3%, and housing funds, 5%) for their pensions and housing funds on their individual part. The company paid the remaining majority part (26 % for pensions, 5 % for housing funds). In practice, both the company and employees disclaimed employment obligations to each other. They were called ‘Liang bu zhao” (i.e. employee and employer do not have an obligation to each other). However, the majority of redundant workers at that time stayed with WM.

the organisation when employees leave. In other words, here management faces the problems of adverse selection effects (Baron and Kreps, 1999).

Along with the losses of talented employees is the declining capacity of the downsized company to attract and recruit newly qualified employees from labour markets. This declining ability is particularly pronounced in SOEs because they cannot compete very well for talented personnel on the labour market, due to their lower wage level relative to the private firms. Both the downsized companies acknowledged a declining number of new entrants recently recruited from local universities. Drain of skilled employees, coupled with a declining number of new entrants, poses a threat to the survival of the companies under currently intensified competitive business environment. It also undermines the long prospect of the company's development. In order to cope with the shortage of skilled employees, the WM, for instance, had to rely on the company-run technical school to meet its technical personnel needs by lowering entry quality.

Another problem, related to first one, is the declining commitment of the downsized companies to training investment. Frequently, the increasing drain of skilled labour, associated with rising labour turnover, encourages the downsized companies to withdraw, rather than to increase its training commitment that is a key to boosting businesses after downsizing. Lack of training opportunities, in turn, pushes more workers to leave the company. This self-enforcing circular process leads to critical acquisition and selection problems. In the two studied companies, both the internal (i.e. in-house) and the external training (i.e. contracted out to local universities) were cutting off for cost-savings after downsizing.

Thirdly, downsizing failed to change management behaviour. As indicated, downsizing was mainly targeted at elderly or poor performing young workers, to less extent to middle managerial personnel (in the case of the WM). It did not touch on the top management team members (including a general manager, Party secretary, and deputy managers) that were all appointed by the government supervisory agencies. Moreover, management performance was subjected only to annual appraisal conducted by the local municipal government's Organisation Department. From the views of personnel managers, and others interviewed, the top managers remain conservative, lacking of spirit of venturing and innovation after downsizing. In the eyes of personnel manager at one company investigated, top management tends to be more bureaucratic than entrepreneurial. He expressed:

"As a result of downsizing, employees value their employment positions with high commitment and high morale. Management should take this opportunity to make a stride and explore new frontier of the business. However, our top management is engaged in routine tasks, cultivating good personal relations with the government supervising agency".

Frequently, internal attrition arises among top management. That is, top managers themselves do not always get well with each other because of difference in their personality and leadership style. Essentially, they are agents of the state (i.e. the principal) with different, most likely conflicting, personal goals and desires that are not often in line with the interest of the company, or vice versa. When conflicts occur, for instance, between the general manager and the Communist Party secretary, no body may want to yield in and leave room for the other. Most likely then, they apparently stay together peacefully while struggling underground for the control of managerial power. As a strategy, both the general manager and the Party secretary keep silent, not reporting directly to their supervising agency while privately cultivating personal relations with government officials. They fear that any *formal* report about their coalition attrition might discredit their leadership capacity and personal reputation. What they are most likely to do is to adopt a 'wait-and-see' strategy, until the supervising agency discovers that a change of leader composition is indispensable. Under these circumstances, they put aside management tasks that may jeopardise the interest of the company. In the words of the personnel manager interviewed:

What the top managers most wish to see is worsening of the company's situation. Its collapse or bankruptcy might provide them an opportunity for a new appointment in another comparable organisation at the same hierarchical level or above. What they most unwilling to see is the state of no vigour yet no death at sight in the company.

Clearly, the management appointment and appraisal by the government cannot fully solve the principal-agent impasse under the CMRS. Conversely, it provides a unique fertile soil on which the top managers can cultivate good personal relations with the government supervisory agencies during their term in order to secure a better bureaucratic position after the termination of their contract[22].

In summary, downsizing gives rise to the leakage of human capital from the two downsized companies. The loss of human capital resulted from both the growing labour turnover during (even before, i.e. earlier movers) downsizing and the declining capacity of the organisation to attract new skilled entrants from labour markets after downsizing. In addition, the downsized companies suffer from the increasing loss of organisational memory and competence that disrupts the continuous business process of the firms. On the other hand,

[22] One extreme example is that the general manager often invites local officials to tour abroad financed by the company.

downsizing failed to generate sufficient pressure on the top management for a sustainable efficiency gain commitment. Instead, top managers continue to engage in internal attrition for bureaucratic control or promotion, rather than concentrate more fully in daily management. In other words, top managers enjoy secure managerial jobs, independent of their performance once they possess a privileged bureaucratic position in the state sector.

IV. Concluding remarks

In the transition to market economy, SOEs in general and the two investigated manufacturing enterprises in particular, encountered severe challenges of losing market shares and skilled personnel, due to the increasing competition on domestic markets. Downsizing is for the first time becoming a hammer wielded by management in SOEs as a means of reducing labour costs, improving efficiency and tightening labour discipline. Despite this, downsizing was mainly implemented as a defensive reaction, rather than proactive response to market share decline in the industry, with the government push and support.

As the empirical findings show, and Cameron's (1994) approach to downsizing allows us to explain, downsizing in the first place substantially reduced the workforce in a very short time. Subsequently, the downsized companies received a quick upturn in their profit revenues. Most significantly, downsizing led to the development of flexible labour practices among the remaining employees, whereby work becomes intensified and strict labour discipline is imposed. Moreover, downsizing gives rise to changes in corporate structure and business orientation. All these achievements could be perceived as positive outcomes associated with downsizing.

What distinguishes the downsizing process in the Chinese state sector from the West, as well as from other transition economies, is that the move to downsizing in the two studied state firms was mainly driven by the government. Second, the state managers adopted the "*first-in and first-out*" downsizing strategy with elderly workers as a main target category. Thirdly, mass layoffs during downsizing were not directly released to markets. Instead, they were sunk into the company's internal labour pool and lived on the payment of their companies. It is clearly that the practice of downsizing in the two Chinese state firms was shaped by two factors, the path-dependency of the past institutional legacies and market pressure of the ongoing changes in the business environment.

Despite the achievements of downsizing, the two studied companies are still facing critical challenges. Externally, intensified competition forces state firms to lower cost, and quick respond to market changes, while the underdeveloped social infrastructures (such as unemployment insurance, and pensions), as well as the continuous government intervention in the personnel area, constrains managerial discretion in the adjustment of the workforce to fluctuations in markets.

Internally, most severe challenges come from the management of human resources in the downsized companies. As observed, the increasing labour turnover, coupled with the declining capability to retain and attract new qualified personnel from external labour markets, led management to reduce its training commitment to employees. This would further push more and more the best employees away when they envisaged less and less promotion and training opportunities in the future. Here, training is obviously becoming an important rewarding component for employees. The availability of training functions as an effective means of attracting and retaining skilled employees, in addition to contribution to their flexibility and competence that is a source of the firm's competitive advantages.

All of these problems can be largely ascribed to the top management behaviour characterised by bureaucracy instead of entrepreneurship under the changed business environment. Downsizing did not impinge on vested interests of the top managers. Instead, it might enhance top managers' bargaining power in their negotiation with the government supervisory agencies. Usually, top managers still take directives from above seriously, rather than concentrate on markets and employees' long-term well-being. In this sense, downsizing provides an opportunity for managers in the state sector to exploit labour flexibility under the authoritarian management regime supported by the state.

From a broad institutional perspective, one might expect that by bringing back market forces in, downsizing breaks up the tale of tripartite-coalition of the government, management, and state workers that has been upheld as the state socialism so long symbolically. Downsizing in the first place marks a withdrawal of the government from the coalition. On the other hand, downsizing represents a new gesture of the government to reform SOEs by pushing state workers to markets. From the management perspective, downsizing is a double-edged knife: repressing labour for the cost-effectiveness while introducing antagonistic labour relations in the workplace. From the workers perspective, downsizing has profound implications beyond job insecurity in the state sector. It has rendered state workers disenchanted from the lifetime employment system in SOEs. Frequently, the unskilled, and elderly employees suffer most from downsizing, whose interests are lacking protection from the company-based unions. Particularly, the expected role of trade unions acting as a countervailing force towards management is purposely curtailed by the state. On the other hand, downsizing triggers off labour mobility. As observed, young skilled workers tend to leave the downsized companies to look for better jobs elsewhere, and their leaves pose a dilemma for the downsized organisations to catch up with their rivals.

Nevertheless, downsizing has posed challenges that are just emerging in society. Not only is such radical labour reform a culturally and politically sensitive area of management, but also the consequence of downsizing that has incurred mass layoffs and unemployment poses a threat to the government and leads traumas to workers. For the government, by pursuing labour market practices it marks a retreat from its past long-lasting commitment to the full employment policy guaranteed to all able workers. This perilous break-up from the orthodox ideology thus stirs up a political debate on the nature of labour, namely, the status of workers, in the socialist country that might further undermine government legitimacy. For ordinary workers, by introducing labour market policies into the enterprise it implies employment insecurity that threatens their stable jobs and incomes. It is not surprise that strong resistance to change arises when workers lost their jobs for the first time in their live (Cheng 1989). The resistance is most latent in SOEs, whose employees are most likely adversely affected and "whose major stakeholders are not always supportive of (and are sometimes outright hostile to) such reforms" (Shenkar, 1991: 1). This calls for more research on downsizing from the workers perspective.

Whatever challenges remain after downsizing, costs are critical for state firms to survive today's competition first, and then gain a competitive advantage for tomorrow in present China. A long-term prospect for SOEs to catch up their rivalries lies not only in cost effectiveness, but also resides in their organisational capacity to develop human capital, and more importantly, to retain it for a flexible utilisation. However, the persistent drain of human capital revealed in our two downsized state firms has substantially undermined the long-term competitive advantage base of the companies. Downsizing cannot reverse the trend, rather reinforce it.

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