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The Impact of SARS on China's Human Resources:

Implications for the Labour Market and Level of Unemployment in the Service Sector in Beijing, Guangzhou and Shanghai

Grace O. M. Lee and Malcolm Warner

Abstract

In this article, we examine the effects of SARS (Severe Acute Respiratory Syndrome) on China's human resources, its labour-market and its level of employment and unemployment, looking specifically at what was one of its economically most vulnerable points, the hotel industry. The article hypothesizes that the greatest impact would be on human resources in the service-industries and on particular sub-sectors, such as employment in hotels, located in three main cities in the PRC, Beijing, Guangzhou and Shanghai, catering to both overseas as well as domestic tourism. It tentatively concludes that the almost dramatic demand and supply 'shocks' may have directly affected both the demand for and the supply of labour in the sub-sector, with discernable employment consequences.

Keywords*: Asian economy, China, epidemics, employment, hotel industry, human resources (HR), Human Resource Management (HRM), labour-market, People's Republic of China (PRC), Severe Acute Respiratory Syndrome (SARS), service-sector, tourism, uncertainty, unemployment.*

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Introduction

Severe Acute Respiratory Syndrome, better known by its acronym SARS, was seen by the World Health Organization (WHO) as the 'first global epidemic of the 21st Century' (*BBC News*, 28 April 2003; Posner, 2004; Kleinman and Watsons, 2005). The pervasiveness of the SARS crisis came about in two ways. One was *geographical* - SARS had spread from Guangdong Province in Southern China to its capital, Beijing in the North and other parts of the country, and indeed beyond its frontiers. Table 1 shows that the virus had appeared in thirty-two countries affected 8,422 people and led to 916 deaths (World Health Organization, 2003). China, including the mainland, Hong Kong Special Administrative Region (HKSAR) (see Lee and Warner, 2005a), and Taiwan (see Lee and Warner, 2005b) was the worst hit, accounting for 92 percent of the accumulated cases and 90.5 percent of total deaths. The second was *dimensional* and concerns the impact on economic development, employment levels and more broadly, day-to-day social activities.

Table 1: **Summary Table of SARS Cases by Country, 1 November 2002 – 7 August 2003**

Areas	Cumulative No. of Cases	No. of Deaths
Australia	6	0
Brazil	1	0
Canada	251	41
China	5,327	349
China, Hong Kong Special Administrative Region	1,755	300
China, Macao Special Administrative Region	1	0
China, Taiwan	665	180
Colombia	1	0
Finland	1	0
France	7	1
Germany	9	0
India	3	0
Indonesia	2	0
Italy	4	0
Kuwait	1	0
Malaysia	5	2
Mongolia	9	0
New Zealand	1	0
Philippines	14	2
Republic of Ireland	1	0
Republic of Korea	3	0
Romania	1	0
Russian Federation	1	0
Singapore	238	33
South Africa	1	1
Spain	1	0
Sweden	3	0
Switzerland	1	0
Thailand	9	2
United Kingdom	4	0
United States	33	0
Viet Nam	63	5
Total	**8,422**	**916**

Source: World Health Organization, www.who.int/csr/sars/country/2003_08_15/en/

Was it to be the first '*virtual epidemic*' whose notoriety was to spread via the international media, across the globe? This article begins with a brief background sketch of the start of the epidemic and then moves on to briefly discuss what was feared as the potential *short-term* economic impact of SARS on the Asian economies, moving on to a specific examination of the consequences for the People's Republic of China (PRC), its labour-market and one particularly vulnerable point of its service-sector, namely hotels and hospitality industries, from an employment and human resources perspective. Thus, epidemics, mortality and economics, we would argue, may now be seen as integrally interlinked (see Lee and Warner, 2005a), particularly as mass air-travel has become a potentially worldwide transmission-belt in our contemporary, increasingly globalized world.

In recent years, a number of studies have attempted to estimate the economic burden of an epidemic based on the private and non-private medical costs associated with the disease (Lee and McKibbin, 2003). The costs include private as well as public expenditures on diagnosing and treating the disease and are magnified by the need to maintain sterile environments, implement prevention measures, and carry out basic research. These can be substantial for major epidemics, such as AIDS. According to the UNAIDS (the Joint United Nations Programme on HIV/AIDS), at present 42 million people globally live with HIV/AIDS. The medical costs of various treatments of HIV patients, including highly active antiretroviral therapies (HAARTS) are estimated to be more than US$2,000 per patient per year. In the Southern African regions, the total HIV-related health service costs, based on assumed coverage rate of 10 per cent, ranges from 0.3 to 4.3 per cent of Gross Domestic Product (GDP) (Haacker, 2002).

The costs of disease also include incomes foregone as a result of the disease-related morbidity and mortality. Forgone income is normally estimated by the value of lost workdays due to the illness. In the case of mortality, foregone income is estimated by the capitalized value of future lifetime earnings by the disease-related death, based on projected incomes for different age groups and age-specific survival rates. This cost can be substantial for some epidemics. Malaria, for example, currently kills people on a massive scale each year. The HIV/AIDS disease was estimated to have claimed an even greater number of lives in recent years (Lee and McKibbin, 2003). The anticipated costs of a major new epidemic, such as SARS, or now more imminently what has been dubbed as 'Avian Flu', might therefore be thought to be potentially even higher.

Given its relatively low morbidity and mortality *post facto*, why had the economic impact of SARS appeared to be so potentially devastating? *A priori*, neither an outside observer nor even a professional economics expert would have predicted such 'catastrophe in the making' in the circumstances. There had been several incidences of new 'flu viruses in East Asia in recent years, as well as infections affecting chickens and the like, that had more or less been contained. *Much of the economic impact, we would argue, stemmed from the high degree of unusually distinctive uncertainty and fear generated by SARS, particularly by media reports*, which generated other things being equal, in turn, a high degree of *negative feedback*. In macro-economic terms, the phenomenon engendered a more than 'normal' degree of uncertainty in the economic environment. Workers and shoppers across Asia opted to stay at home to reduce the probability of infection. Service exports, in particular tourism-related exports, were very hard-hit. It is no exaggeration that panic gripped

the region- the coauthors of this article are happily 'living witnesses' of this phenomenon. Albert Camus' novel '*La Peste'* ('The Plague') comes to mind here.

The pronounced impact of SARS may possibly be attributed to the combination of two aspects of information about the illness: the almost costless and rapid transmission of information, largely due to the development of modern mass media and communication technologies in the contemporary 'global village'; and perhaps more importantly the lack of reliable and sufficient medical information on SARS. This stimulus may be conceptualized as inducing above all a *'demand-shock'*, particularly on consumption. In locations with a high incidence of SARS, physical movement of people was restricted, either voluntarily or involuntarily, thus potentially reducing consumer spending. SARS thus we surmised mainly affected economic growth by reducing demand; confidence did in fact dramatically decline in a number of economies, leading to a significant reduction in private consumption spending. Much of the impact thus stemmed from the great uncertainty and fear generated by SARS. People had opted to stay at home to reduce the probability of infection. Service exports, in particular tourism-related exports – as we will soon demonstrate in the hotel industry in the PRC - were to be hard hit. Investment was, in turn, affected by reduced overall demand, heightened uncertainties, and increased risks. Foreign investment inflow was delayed or reduced in reaction to SARS. The possible fall in the demand for labour for the goods and services that people would not be buying, would from the specific focus of this article, have to be taken into account.

Hypotheses

In order to create an intelligible frame of reference for our research, we formulated the following hypotheses (see Lee and Warner, 2005a), which encompass *macro*- as well as *micro-economic* factors, not withstanding the human resources implications:-

(i) *The greater the anticipated adverse impact of SARS on the economy, the greater will be the expected negative impact on the potentially vulnerable service-sector and specifically on the hotel industry.*

(ii) *The greater the anticipated adverse impact of SARS on consumer demand in hotels and hospitality industry, the greater will be the expected negative impact on the related demand for labour in terms of hotel employees in specific hotel groups in the industry.*

(iii) *The greater the anticipated adverse impact on the demand for labour in the hotel industry, the greater will be the expected negative impact on the labour-market in terms of the human resources implications of lay-offs and redundancies among hotel employees in specific hotel groups in the industry.*

Methodology

In attempting to study the impact of SARS on the economy and specifically on hotel industry employment, we adopted a two-pronged methodology. First, we generated an in-depth *information data-base* on the SARS epidemic, taking into account its economic as well as its human resources implications, by using the internet, library resources and literature search. Throughout the article however, we cite many official statistics but attempt to maintain a critical stance concerning these. Second, we carried

out on-site *empirical field-based research*, involving interviewing over forty key decision-makers in the service-sector and hotel industry in the PRC, such as responsible government officials, senior managers and union officials, in the period just after the epidemic and its aftermath in the Summer of 2003, as earlier contact would have been dangerous when possible infection was feared. We have cited a selection of the interviews we conducted on-site but only where these were fully germane to the main concerns of this particular article (other items we for example had covered included a range of epidemiological concerns, many beyond the economic and human resources ambit) and where we might 'objectively' assess their validity, always bearing in mind the limitations of the methodology employed.

SARS in Mainland China: Origins

In November and December 2002, Guangdong Province, the most populated in Southern China, began to see cases involving a mysterious and contagious 'flu-like' virus that PRC medical officials referred to as 'atypical pneumonia'. Provincial officials took emergency measures and the PRC government sent medical teams to Guangdong to investigate the outbreak. Still, for months, official Chinese sources downplayed the seriousness and extent of the mysterious illness. The Guangdong Provincial Health Bureau made the first official PRC announcement about the new illness on February 11, 2003, reporting that 5 had died and more than 300 had become sick (*Renmin Ribao* (People's Daily), 12 February 2003). On February 12, 2003, the official Xinhua News Agency announced that the mysterious illness had been 'brought under control' and no new cases had been reported in China (*People's Daily*, 13 February 2003). This remained the official story from the Chinese government through mid-March 2003, even as the World Health Organization (WHO) issued a

global alert on March 12, 2003, following new outbreaks of an 'atypical pneumonia' in Hong Kong and Vietnam (see Lee and Warner, 2005a).

Official PRC reluctance to be forthcoming continued throughout March. On March 15, 2003, WHO issued a rare 'emergency travel advisory' warning, for the first time referring to the illness as Severe Acute Respiratory Syndrome, abbreviated to SARS, and saying that its further spread to Singapore, even to Canada and parts of Europe now made it a 'global health threat.' According to WHO officials, it was only at this point that the Chinese government began providing WHO with information about the February atypical pneumonia outbreak in Guangdong, although WHO reported that the PRC still declined to provide biological samples, test results, or even details about courses of treatment. On March 18, 2003, PRC officials admitted that the SARS outbreak was continuing in Guangdong, but had not expanded elsewhere in China (*Wen Wei Po*, 19 March 2003). This was contradicted by reports from Chinese doctors that two people in Beijing had died from the disease earlier in the month.

With SARS cases continuing to multiply and expand to other countries, including the United States, the PRC in April 2003, began to react to growing criticism over their handling of the SARS crisis. A number of WHO investigators were permitted to go to Guangdong on April 2. Two days later, the head of the PRC's Centre for Disease Control issued an unprecedented public apology for the government's mishandling of the health crisis (*Wen Wei Po*, 5 April 2003). Greater impetus for fuller disclosure appeared to come from within China's medical community itself. On April 9, a prominent Beijing surgeon publicly disclosed that the government was seriously 'under-reporting' cases of SARS in Beijing, and that the number was far more than 22 cases the government indicated (The *Wall Street Journal*, 2003).[1] WHO officials also

bluntly told PRC officials on April 17 that the SARS figures Beijing was reporting were 'unreliable'.

The next day, China's new Premier, Wen Jiabao, threatened dire consequences for any government official that did not make full and timely disclosure about SARS cases (*People's Daily*, Overseas Edition, 19 April 2003). The real official turnaround in the crisis came on April 20, when PRC leaders fired two senior officials for covering up the extent of the crisis[2] – the first in a series of such firings. PRC leaders also promptly announced that a national week-long May holiday would be reduced to one day to deter travel. Officials also held a nationally televised press conference to announce that 339 cases of SARS had been confirmed and another 402 were suspected in Beijing alone, not 37 confirmed cases as previously reported. As of April 27, 2003, the number of confirmed cases in Beijing alone had passed 1,100 and SARS outbreaks had been reported in 26 of the PRC's 31 provinces, very likely an under-estimate. That same day, the PRC government ordered the emergency closure of movie theatres, discos, churches, and other public places in Beijing (*People's Daily*, 28 April 2003). Although daily PRC announcements showed that confirmed SARS cases were now increasing on a daily basis, WHO officials on April 29 criticized the government as continuing to be unforthcoming with further details about the Beijing cases.

The U.S. Government had issued several travel warnings encouraging Americans to deter non-essential travel to the PRC. In addition, the Department of State on April 1, 2003, authorized the departure of non-essential personnel and family members from the U.S. Consulate General in Guangdong and Hong Kong, and similarly on April 3, 2003 from the U.S. Embassy in Beijing and from U.S. Consulates General in

Chengdu, Shenyang, and Shanghai (Dumbaugh, 2003),

While SARS did pose significant medical risks for local populations, it was feared, as we now know mistakenly ex post facto, that it would have far greater economic implications for the world economy, mainly because of the threat of a potentially devastating, worldwide epidemic, for which there was seemingly no medical cure available. It seems it was difficult to steer between the *Scylla* of the WHO worst-case planning scenario and the *Charybdis* of what may have been a more rational risk-assessment.

The Economic Impact of SARS: A Tentative Analysis

A Chief Economist for *World Bank East Asia* estimated that a potential direct macro-economic effect of SARS would be to reduce East Asian growth by 0.4 to 0.5 percent of GDP, bringing the estimated cost of SARS in the range of US$20 billion to US$25 billion, a huge amount (World Bank, 2003). The *Asian Development Bank* (ADB) put the GDP losses in Asia at US$18 million, 0.6 percent of the total GDP. If calculated by total final expenditure (TFE), the effect of SARS on TFE is US$59 billion, accounting for 2 percent of the GDP. China allegedly sustained the biggest losses, estimated at US$6.1 billion, accounting for 0.5 percent of the GDP. Table 2 shows the estimated impact of SARS on the Asian economies (see Table 2).

Table 2: Estimated Impact of SARS on the Asian Economy, 2003

	Consumption Spending		GDP		TFE	
	US$ billion	% in GDP	US$ billion	% in GDP	US$ billion	% in GDP
China	4.2	0.3	6.1	0.5	17.9	1.3
Hong Kong	3.4	2.2	4.6	2.9	12.0	7.6
ROK	0.1	0.0	0.3	0.1	6.1	1.2
Taiwan, China	1.8	0.6	1.3	0.5	4.6	1.6
Indonesia			0.3	0.1	1.9	0.9
Malaysia			0.4	0.4	3.0	2.9
Philippines			0.0	0.0	0.6	0.7
Singapore	0.6	0.7	2.7	3.0	8.0	9.0
Thailand	1.0	0.7	1.9	1.4	4.5	3.2
Vietnam			0.4	1.1	0.4	1.1
Total			18.0	0.6	59.0	2.0

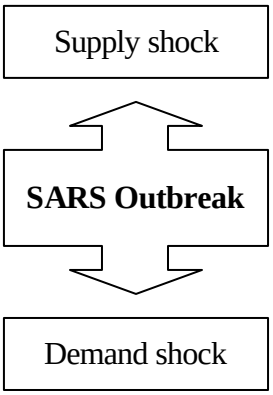
Source: ADB, Asian Development Outlook 2003 Update, in Hu Angang and Hu Linlin, *A Review of China's Health and Development from the Perspective of SARS*, paper presented at the celebrations of the 20th anniversary of the founding of the China Health Economics Society on November 6, 2003.

There were a number of channels by which an epidemic, like the SARS outbreak, could potentially affect an economy. We have admittedly simplified the *causal* links in our own model (see Figure 1) but we do use it at this point to exemplify the main variables we have chosen to highlight *in order to primarily present the human resources consequences*. We fully recognize the fallible nature of official Chinese statistics but do offer estimates from non-Chinese experts. We are aware of the multi-

causal and multi-variate nature of the possible causal links but have tried to make the explanation offered as intelligible as possible in its broader economic, political and social contexts, with the caveats we have set out. We do also see our results as a tentative attempt at analysis of the human resources implications and will return to this point in our conclusions.

One channel may be seen as operating through *'supply- shocks'*. If the outbreak could not be effectively contained, the work force would be reduced because of illness or precautionary measures to prevent the spread of SARS, thereby disrupting business operations and production (Asian Development Bank, 2003). There was also the risk of a major demand 'shock' as people just stopped shopping and became almost 'paralyzed' into economic indecision (see Figure 1).

Figure 1: The Economic Impact of SARS



The Chief Economist of the World Bank Resident Mission in China described the SARS effect on its economy as 'temporary' and said that the expected negative economic impact of SARS should not be 'over-exaggerated', as China would remain one of the fastest growing economies in the world in 2003 (*China Daily*, 29 April 2003). The Boao Forum's secretary-general for Asia noted that 'China still offers the

most competitive labour market, and remains one of the biggest consumer markets and its size is growing rapidly' (ibid). Many economists were equally of the opinion that the service trades, such as tourism, catering, transportation, recreations and exposition industries, that had been the hardest hit by SARS, assumed only a small proportion of the country's gross domestic product (GDP) (*People's Daily*, 28 April 2003; *China Daily*, 29 April 2003). [2]

Furthermore, the growing demand to fight the SARS epidemic meant growth for industries producing medicine, medical apparatuses and equipment, textiles such as gauze face-masks and protective suits, sanitation detergents and disinfectants, as well as for the telecoms sector (Xinhua News Agency, 10 May 2003; *People's Daily*, 24 May 2003).[4] Professor Hu Angang, a prominent expert on China's economic development at Tsinghua University in Beijing, for instance, confidently acknowledged that SARS' adverse impact could be offset by a host of other factors which might also spur economic growth because China, with its huge market, has a strong capability of confronting shock from the outside. He was convinced that the Chinese economy had shown an obvious self-propelling and self-increasing inertia (ibid). Judging from the data published by China's State Statistical Bureau, SARS had caused adverse impact on China's economy but that it had not altered the basic situation or changed the general trend of rapid growth (see Table 3). It can therefore be seen that expert opinion blew both 'hot' and cold'.

Table 3: Gross Domestic Product (GDP) and GDP Growth in China, 1980-2003

Year	Gross Domestic Product (billion yuan)	GDP Growth Rate (%)
1980	451.78	7.8
1981	486.24	5.2
1982	529.47	9.1
1983	593.45	10.9
1984	717.10	15.2
1985	896.44	13.5
1986	1,020.22	8.8
1987	1,196.25	11.6
1988	1,492.83	11.3
1989	1,690.92	4.1
1990	1,854.79	3.8
1991	2,161.78	9.2
1992	2,663.81	14.2
1993	3,463.44	13.5
1994	4,675.94	12.6
1995	5,847.81	10.5
1996	6,788.46	9.6
1997	7,446.26	8.8
1998	7,834.52	7.8
1999	8,206.75	7.1
2000	8,946.81	8.0
2001	9,731.48	7.5
2002	10,479.06	8.0
2003	11,669.40	9.1

Sources: National Bureau of Statistics, *China Statistical Yearbook 2003* (Beijing: China Statistics Press, 2003), pp.55-57 (figures for 1980 to 2002); *Statistical Communiqué of the People's Republic of China on the 2003 National Economic and Social Development*, National Bureau of Statistics, www.stats.gov.cn/english/newrelease/statisticalreports/t20040303_402133921.htm (figure for 2003).

Although many international corporations had put off or canceled business travel and conferences in China since the outbreak of SARS, and could cause the delay of an expected US$1 billion in China's total foreign investment in the second quarter of 2003, the official foreign direct investment (FDI) figure for the year was in the end still to hit the US$53.5 billion level [5] (See Table 4).

Table 4: Realized Value of FDI in China, 1983-2003

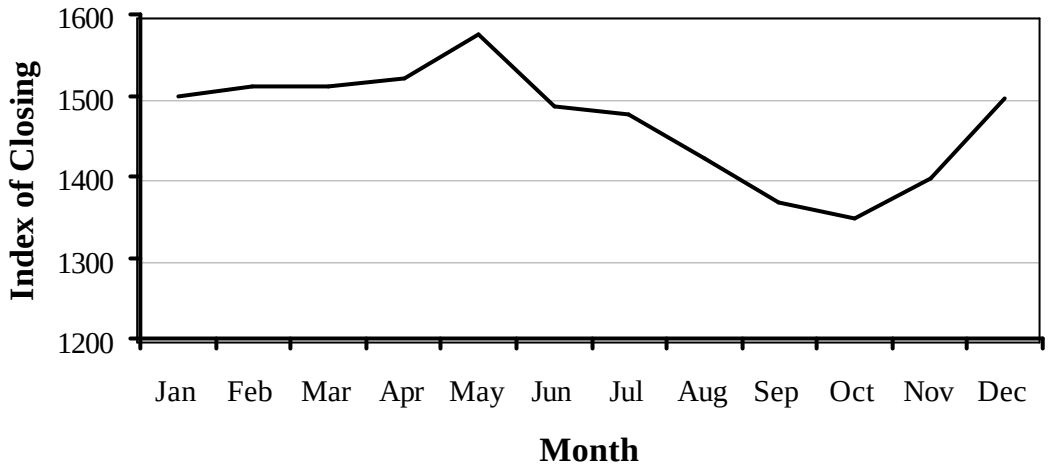
Year	Realized Value of FDI (billion US$)
1983	0.92
1984	1.42
1985	1.96
1986	2.24
1987	2.31
1988	3.19
1989	3.39
1990	3.49
1991	4.37
1992	11.01
1993	27.52
1994	33.77
1995	37.52
1996	41.73
1997	45.26
1998	45.46
1999	40.32
2000	40.72
2001	46.88
2002	52.74
2003	53.51

Sources: Ministry of Commerce, Invest in China website, www.fdi.gov.cn/common/info.jsp?id=CENSOFT0000000008072 (figures for 1983 to 2002); *Statistical Communiqué of the People's Republic of China on the 2003 National Economic and Social Development*, National Bureau of Statistics website, www.stats.gov.cn/english/newrelease/statisticalreports/t20040303_402133921.htm (figure for 2003).

In addition, the Shanghai and Shenzhen stock-markets (see Tables 5 and 6) displayed no inordinate downturn during the SARS period, that is, the second quarter of 2003, then rose sharply when the epidemic seemed to have abated but for other reasons dipped later in the third and fourth quarters of the year, mainly due to perceived problems of 'overheating' in the Chinese economy and so on.

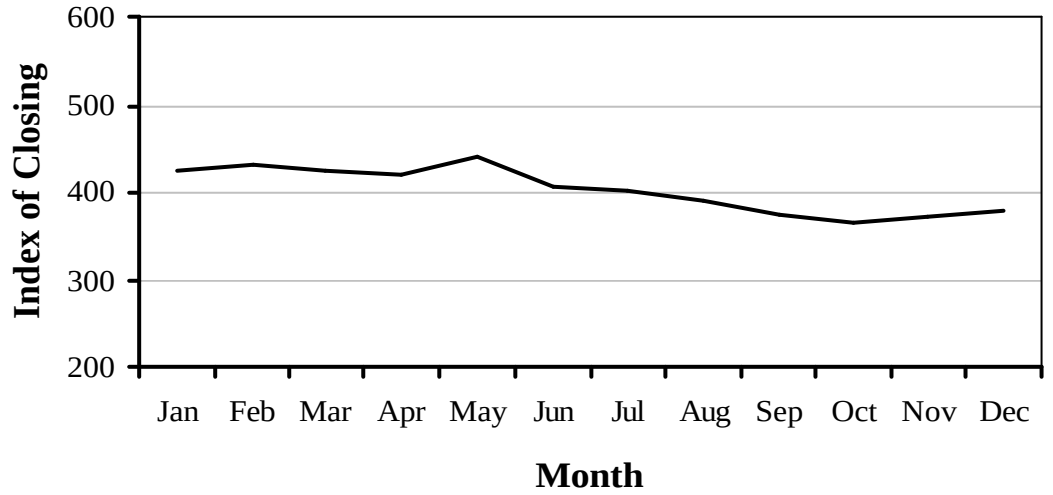
We may therefore conclude that many of the fears regarding the economic impact for mainland China may have been often exaggerated, pointing more to a 'public health' crisis than an economic one, unlike the experience of Hong Kong where the overall economic implications were more extensive and where the service-sector and particularly the hotel industry was more prominent in the economy (see Lee and Warner, 2005a).

Table 5: Composite Index of Shanghai Stock Exchange, January 2003 – December 2003



Source: China Securities Regulatory Commission website, www.csrc.org.cn/cn/tongjiku/ehtml/y2004/01/N200401.html

Table 6: Composite Index of Shenzhen Stock Exchange, January 2003 – December 2003



Source: China Securities Regulatory Commission website, www.csrc.org.cn/cn/tongjiku/ehtml/y2004/01/O200401.html

Impact on Human Resources in the Hotel Industry

We now turn to a discussion and evaluation of the economic and human resources impact of SARS on China and its hotel industry, its managements and its employees. We will discuss the evidence we have collected in terms of the set of hypotheses we adumbrated earlier. Taking each hypothesis in turn, we envisaged that:

(i) The greater the anticipated adverse impact of SARS on the economy, the greater will be the expected negative impact on the potentially vulnerable service-sector and specifically on the hotel industry.

Was this the case? Official economic data suggests that real GDP growth had indeed fallen back in the second quarter and was 6.7 percent (see Table 7). Hu Angang attributed the meagre growth of the tertiary industry in the second quarter by 0.8 percent to SARS, as the impact of SARS was mainly concentrated in late April and in May 2003, and mainly in the tertiary sector, especially retail, tourism and transportation (Hu and Hu, 2003). We found that this reporting of this downturn was confirmed in our on-site interviewing in the hotel industry (Interviews, Summer 2003).

Table 7: Growth of China's Major Economic Indicators (Unit: %)

Indicator	First quarter	Second quarter	Third quarter	Jan.-Sept.
GDP	9.9	6.7	9.1	8.5 (10)
Service	7.7	0.8	7.6	

Source: State Statistical Bureau, *China Economic Cycle Monthly Report*, September 2003, in Hu Angang and Hu Linlin, *A Review of China's Health and Development from the Perspective of SARS*, a paper presented at the celebrations of the 20th anniversary of the founding of the China Health Economics Society on November 6, 2003.

Given the many unknowns about SARS, it is clear that it had threatened the general health of the populace *and, if not brought under full control*, might potentially jeopardize the hard-won economic progress that China had achieved in recent years. In Beijing, the worst hit city in China, it was suggested that the deadly SARS virus caused a loss of 450 million yuan (US$54.4 million) during the first four months of 2003 (*China Daily*, 14 May 2003). Table 8 shows that Beijing had seen a year-on-year increase in tourist arrivals and tourism receipts from 1978 to 2002, leaping from rank 18 and rank 34 of the world's tourist arrivals and tourism receipts in 1980 to rank 5 in 2002 (see table 8).

Table 8: Rank of China's Tourist Arrivals and Tourism Receipts in the World, 1978-2003

Year	Tourist Arrivals (10 thousand)	Rank	Tourism Receipts (100 million US$)	Rank
1978	71.60		2.63	
1979	152.90		4.49	
1980	350.00	18	6.17	34
1981	376.70	17	7.85	34
1982	392.40	16	8.43	29
1983	379.10	16	9.41	26
1984	514.10	14	11.31	21
1985	713.30	13	12.50	21
1986	900.10	12	15.31	22
1987	1,076.00	12	18.62	26
1988	1,236.10	10	22.47	26
1989	936.10	12	18.60	27
1990	1,048.40	11	22.18	25
1991	1,246.40	12	28.45	21
1992	1,651.20	9	39.47	17
1993	1,898.20	7	46.83	15
1994	2,170.00	6	73.23	10
1995	2,003.40	8	87.33	10
1996	2,276.50	6	102.00	9
1997	2,377.00	6	120.74	8
1998	2,507.29	6	126.02	7
1999	2,704.66	5	140.99	7
2000	3,122.88	5	162.24	7
2001	3,316.67	5	177.92	5
2002	3,680.26	5	203.85	5
2003	3,297.05	N.A.	174.06	N.A.

Source: World Tourism Organization, in China National Tourist Office website, http://www.cnto.org/chinastats.asp.

Similar year-on-year increases in the number of visitor arrivals could be seen from 1979 to 2002, experiencing the only drop from 2002 to 2003; of the dramatic decline of more than 6.24 million visitors to China in a year, a little more than 2 million were 'foreigners', while the rest were from Hong Kong, Macau and Taiwan (see Table 9).

Table 9: Annual Visitor Arrivals, 1978-2003 (Unit: person)

Year	Total	Foreigner	Overseas Chinese	HK & Macao	Taiwan
1979	4,203,901	362,389	20,910	3,820,602	N.A.
1980	5,702,536	529,124	34,413	5,138,999	N.A.
1981	7,767,096	675,153	38,856	7,053,087	N.A.
1982	7,924,261	764,497	42,745	7,117,019	N.A.
1983	9,477,005	872,511	40,352	8,564,142	N.A.
1984	12,852,185	1,134,267	47,498	11,670,420	N.A.
1985	17,833,097	1,370,462	84,827	16,377,808	N.A.
1986	22,819,450	1,482,276	68,133	21,269,041	N.A.
1987	26,902,267	1,727,821	87,031	25,087,415	N.A.
1988	31,694,804	1,842,206	79,348	29,733,250	437,700
1989	24,501,394	1,460,700	68,556	22,971,868	541,000
1990	27,461,821	1,747,315	91,090	25,623,416	948,000
1991	33,349,757	2,710,103	133,427	30,506,227	946,632
1992	38,114,945	4,006,427	165,077	33,943,441	1,317,770
1993	41,526,945	4,655,857	166,182	36,704,906	1,526,969
1994	43,684,456	5,182,060	115,245	38,387,151	1,390,215
1995	46,386,511	5,886,716	115,818	40,383,977	1,532,309
1996	51,127,516	6,744,334	154,601	44,228,581	1,733,897
1997	57,587,923	7,428,006	99,004	50,060,913	2,117,576
1998	63,478,401	7,107,747	120,704	56,249,950	2,174,602

1999	72,795,594	8,432,296	108,141	64,255,157	2,584,648
2000	83,443,881	10,160,432	75,487	73,207,962	3,108,643
2001	89,012,924	11,226,384	N.A.	77,786,540	3,441,961
2002	97,908,252	13,439,497	N.A.	80,808,190	3,660,565
2003	91,662,100	11,402,900	N.A.	77,528,300	2,721,900

Source: Ministry of Public Security, in China National Tourist Office website, http://www.cnto.org/chinastats.asp.

Note: Compatriots from Hong Kong, Macao and Taiwan Province

Beijing received 1.85 million overseas tourists in 2003, a drop of 40.4 per cent from 2002, according to official figures (*China Daily*, 13 April 2004). The devil, as ever, is 'in the details'. According to a survey of 20 four- and five- star hotels in Beijing by the China Economic Monitoring Centre under the National Bureau of Statistics, their occupancy had fallen by 30 percent in April 2003 compared to the same period last year. The occupancy of six five-star hotels surveyed had decreased by 50 percent (*China Daily*, 29 April 2003). Occupancy rates had dipped to as low as 20 percent at hotels catering for foreigners in the capital (ibid). The five-star Grand Hyatt Beijing in Chang'an Street had a usual occupancy rate of around 80 percent in March. However, the rate was sharply slashed in April 2003 following the spread of SARS. In Beijing, more than 1,440 tour groups of 40 or more people had postponed tours since the outbreak of SARS. At the beginning of April, a total of over 10,000 people had canceled their advanced bookings in China International Travel Service (CITS), while over 7,000 from China Youth Travel Service. Guangdong International Travel Service had almost stopped its cross-border travel service, according to our interviews (Interviews, Summer 2003).

The Shanghai Tourism Administrative Commission reported in late April that local travel agencies had refunded money to 3,464 inbound groups involving 75,182 tourists and 279 outbound groups with 8,901 tourists after they canceled their tours (eastday.com, 2003). According to the commission, travel agencies offering both domestic and overseas tour packages reported their income plummeted by 78 percent in April compared to the same period last year, while agencies dealing in domestic travel said their income dropped 20 percent year-on-year (ibid). The occupancy rate at 398 local hotels was less than 20 percent on average, while at five-star hotels it was only 13 percent. Luxury hotels in Shanghai slashed room-rates to counter the effects of SARS (Field interviews, Summer 2003). The five-star Westin Tai Ping Yang Hotel offered a standard room at 528 yuan (US$64) a day, compared with the previous record low of 756 yuan (US$91) plus a 15-percent service charge. Another five-star hotel, Shanghai JC Mandarin Hotel, offered up to 60-percent discounts on rooms. An overnight stay in a standard room then cost 488 yuan (US$59) plus a 15-percent service charge, while the full rate used to be US$150 plus a 15-percent service charge. The city government has announced to offer subsidies to hotels and travel agencies, while exempting all hotels from the social charges (*Wen Wei Po*, 9 May 2003). Interviews in the Shanghai hotel industry confirmed these reactions (Field interviews, Summer 2003).

At this juncture, we look further at our second hypothesis:

(ii) The greater the anticipated adverse impact of SARS on consumer demand in hotels and hospitality industry, the greater will be the expected negative impact on the related demand for labour in terms of hotel employees in specific hotel groups in the industry.

As people avoided hotels, restaurants and other places in fear of catching the virus, some hotels took the opportunity for renovation and human resource management (HRM) renewal (Field interviews, Summer 2003). An executive with the hotel management company of Jinjiang Group, the largest hotel group of east China's Shanghai, said that their group had decided to 'bring forward renovation and employee training programs' in some of their hotels (Xinhua News Agency, 18 May 2003) In the Tibetan-Qiang Autonomous Prefecture of Aba, a tourist area in southwest China's Sichuan Province, brisk construction had replaced the swarms of tourists. A planning official of the prefecture, home to the world-renowned Jiuzhaigou Natural Scenic Reserve and the Yellow Dragon Resort[6] said tourist arrivals had increased at double-digit speed in recent years and pressure on transportation and accommodation facilities was enormous. Affected by SARS, tourist arrivals in May, June and July 2003 was predicted to drop by around one million compared with the same period last year. This would give a precious opportunity for the officials to accelerate the upgrading of accommodation facilities and projects under construction including tunnels, highways and the Jiuzhaigou-Yellow Dragon airport (Xinhua News Agency, 18 May 2003). On the other hand, many hotels took measures to reduce costs; including stopping all overseas training programs, halting advertisements and promotional activities and encouraging staff to take leave without pay, as they did in Hong Kong (Field interviews, Summer 2003 and earlier in Hong Kong cases; Lee and Warner, 2005a) and Taiwan (Field interviews, 2005; Lee and Warner, 2005b).

The situation was worsened when the State Council promulgated a notice that shortened the seven-day Labour Day holiday to five days, and called for no travel to avoid the fast spread of the epidemic (*People's Daily*, 21 April 2003). This holiday is one of the three 'Golden Weeks' in China, significantly boosting China's tourism

over the past several years. As a result of the leaps in income per capita in the urban areas (see Table 10), the revenue from the Labour Day holiday usually accounts for over 40 percent of the year's total.

Table 10: Income Per Capita in Urban China, 1990-2003

Year	Income Per Capita in Urban Areas (yuan)
1990	1,510.2
1991	1,700.6
1992	2,026.6
1993	2,577.4
1994	3,496.2
1995	4,283.0
1996	4,838.9
1997	5,160.3
1998	5,425.1
1999	5,854.0
2000	6.280.0
2001	6,859.6
2002	7,702.8
2003	8,472.0

Sources: National Bureau of Statistics, *China Statistical Yearbook 2003* (Beijing: China Statistics Press, 2003), pp. (figures for 1990 to 2002); *Statistical Communiqué of the People's Republic of China on the 2003 National Economic and Social Development*, National Bureau of Statistics website, http://www.stats.gov.cn/english/newrelease/statisticalreports/t20040303_402133921.htm (figure for 2003).

As a result of SARS, telephone interviews with 48 transnational corporations conducted by the China Economic Monitoring Centre - under the National Bureau of Statistics - revealed that their HRM departments had banned their employees from traveling in China and that their businesses in the country had been affected to varying degrees. A survey of 50 enterprises in Beijing showed that 36 of them had canceled or reduced domestic business travel. Another interview with 160 Beijing residents showed that 72 percent of them had canceled journeys and cut back on shopping trips and socializing through fear of catching the disease.

A survey of Shanghai, Beijing and Guangzhou residents revealed that the fear of contracting SARS has changed people's lifestyle and attitude (eastday.com, 2003). In the random survey of 314 residents in the three cities, it was discovered that intimate contact, such as kissing and hugging, is on the wane. In Beijing, about one-fifth of those surveyed no longer shared a bed or a meal with family members. About 40 percent people surveyed in the three cities had changed their routine by working at home or reducing their working hours. More than one third of them put off business trips. To stop the spread of SARS, an estimated 8,000 people were under quarantine in Beijing in late April 2003 (*BBC News*, 27 April 2003; 28 April 2003). According to the Shanghai Statistics Bureau, over 77 percent of local residents did not shop downtown during the Labour Day holidays, while over 90 percent of them did not dine out. Less than one percent of the people surveyed travelled to other provinces. Such fears had serious adverse impact on other parts of the service-sector, including civil aviation, railway and road passenger transport, restaurants and hotels. The findings of the above surveys were closely paralleled and confirmed by those of our own interviews (Interviews, Summer 2003).

Chinese airlines had been among the first to feel the pain as the central government tightened control over trans-provincial passenger flows due to the spread of SARS. The airlines had experienced very low seat-occupancy rates since April 2003, and many of them had cut some of their regular flights to save costs, as did Cathay Pacific in Hong Kong. Wang Yongsheng, director of Air China's publicity department, said that the airline cut at least half of its regular flights during the May Day holidays, a traditional transport peak, because of the huge drop in the number of passengers (*Wen Wei Po*, 3 May, 2003; *China Daily*, 10 May 2003). Based in Beijing, Air China runs most of the international flights into and out of China. But, as more and more countries worldwide are restricting the issuing of visas to Chinese citizens because of the SARS panic, the formerly lucrative international transport business had now turned out to be a money-losing one. Since March, Air China had cut 2,100 flights and affected routes to 63 countries and regions. Air China's losses were considerable. Outside Beijing, the Shanghai-based China Eastern Aviation Group has also failed to escape the impact of the industry setback. Nearly 70 percent of seats in its planes were empty, while almost half of the traditional 'golden' routes to Europe, Japan and Southeast Asia were cut (*Ta Kung Pao*, 22 March 2003; *China* Daily, 10 May 2003). The airline had cut more than 2,900 flights since March. Its major domestic flights to SARS-affected cities, such as Beijing, Guangzhou and Taiyuan, were also severely cut.

Since the service-sector, a major channel for absorbing the labour force in urban areas, was most affected by SARS, the employment situation remains potentially vulnerable but less so than in city-state economies, like Hong Kong or Singapore where the tourist and related industries are more proportionally pivotal. We now return to our third hypothesis:

(iii) The greater the anticipated adverse impact on the demand for labour in the hotel industry, the greater will be the expected negative impact on the labour-market in terms of the human resources implications of lay-offs and redundancies among hotel employees in specific hotel groups in the industry.

The State Council had admitted that the outbreak of SARS has worsened China's already 'grave' employment situation (Lee and Warner, 2004, 2002, 2001a, 2001b) Zhang Xiaoqiang, secretary general of China's State Development and Reform Commission (SDRC) acknowledged at a China-ASEAN symposium on Economic and Social Impact of SARS that China started to feel growing employment pressure due to the impact of Severe Acute Respiratory Syndrome (SARS) (Xinhua News Agency, 16 July 2003). According to another report released by a special research team under the Ministry of Labour and Social Security on the post-SARS employment situation, gross employment, employment structure, job seekers and employment services had all been affected by the SARS crisis. The report asserted that SARS exerted more expected negative influences on such employment than just generally affecting the economy (Xu, 2003). Those hardest-hit sectors, though accounting for a small part of GDP, provided a high proportion of the labour-intensive employment opportunities. The short-term micro-economic consequences proved to be serious. These enterprises laid off employees as a short-term measure to counter a sharp decline or suspension in business and revenue: many firms suffered substantially and it took time to recover (Field interviews, Summer 2003).

Discussion

The employment implications are intriguing. In the SARS period that peaked from late April to July 2003, the tourism industry was seriously affected, as it was a major point of potential vulnerability.

Small and medium sized businesses: Shops catering for tourists, such as the jade carvings and ornaments, were closed. Retail workers in one of these shops, the *Long Di* Superior Jade Gallery, were informed that their shop was closed for three months; employees were all on leave but if on-site, they stayed in their dormitories and the main gate was closed to outsiders. Since the shop was state-operated, staff was paid a basic wage of 300 *yuan* (Field interviews, April 2004). Another shop that sells cloisonné to tourists was kept open during the SARS period, but it was manned by a minimum number of shop keepers because it was visited by not more than ten tour groups per day. Staff that went on leave voluntarily would get 300 *yuan* (half of their basic salary) while staff who carried on working would be paid a full salary of 600 *yuan* (Field interviews, April 2004). Many shop keepers had opted for taking leave; some went home and some stayed in the dormitories. Since all local tours were suspended, the tour guides were also paid basic wages. Drivers of the *hu-tung* (alleys) ride on tricycles also informed that their business was suspended and they were paid basic wages. Workers of state-operated enterprises were not the hardest hit as they could live on their basic wages, but part-time workers were the largest victim group (Field interviews, Summer 2003).

Despite a slow recovery, the retail, catering, hotel and recreation industries in the three cities investigated were dealt the biggest blow from SARS. The manager of a

hotel that targeted at the MICE market (business travelers who visited Beijing for [m]eetings, on [i]ncentive tours, for the purpose of [c]onventions and [e]xhibitions) informed us during the interviews that their worst room occupancy during the SARS period was only one customer in one room. Although the hotel was not closed, the three restaurants were merged into one; the convention rooms were all closed; the retail shop was moved to the reception area and only one floor of rooms were open. All such HRM measures were adopted to cut costs. Permanent workers were instructed by their HRM departments to take all their accumulated annual leave, statutory leave and even leave in advance on a rotating basis. State-operated hotel employees could get 70 per cent to 80 percent of their full salary, while employees of hotels with foreign investments could get only their basic wages. One manager we interviewed informed us that there was little resistance from employees because they held a *gongdan* (sharing the burden) attitude. Temporary workers who were mostly non-Beijing residents working as sanitary workers and dish-cleaners left voluntarily, as they were paid on a daily basis (Interviews, Spring 2003).

About a quarter of the 210.9 million employees working in the service-sector were employed in these industries (*China Daily*, 24 June 2003). (see Table 11). If their total business shrank by 10 to 20 percent, 5 to 10 million jobs were potentially under threat.

Table 11: Value Added and Number of Employees by Industries, 1980-2003

	Primary Industry		Secondary Industry		Tertiary Industry	
Year	Value Added (billion yuan)	Number of Employees (million persons)	Value Added (billion yuan)	Number of Employees (million persons)	Value Added (billion yuan)	Number of Employees (million persons)
1980	135.94	291.22	219.20	77.07	96.64	55.32
1981	154.56	297.77	225.55	80.03	106.13	59.45
1982	176.16	308.59	238.30	83.46	115.01	60.90
1983	196.08	311.51	264.62	86.79	132.75	66.06
1984	229.55	308.68	310.57	95.90	176.98	77.39
1985	254.16	311.30	386.66	103.84	255.62	83.59
1986	276.39	312.54	449.27	112.16	294.56	88.11
1987	320.43	316.63	525.16	117.26	350.66	93.95
1988	383.10	322.49	658.72	121.52	451.01	99.33
1989	422.80	332.25	727.80	119.76	540.32	101.29
1990	501.70	389.14	771.74	138.56	581.35	119.79
1991	528.86	390.98	910.22	140.15	722.70	123.78
1992	580.00	386.99	1,169.95	143.55	913.86	130.98
1993	688.21	376.80	1,642.85	149.65	1,132.38	141.63
1994	945.72	366.28	2,237.22	153.12	1,493.00	155.15
1995	1,199.30	355.30	2,853.79	156.55	1,794.72	168.80
1996	1,384.42	348.20	3,361.29	162.03	2,042.75	179.27
1997	1,421.12	348.40	3,722.27	165.47	2,302.87	184.32
1998	1,455.24	351.77	3,861.93	166.00	2,517.35	188.60
1999	1,447.20	357.68	4,055.78	164.21	2,703.77	192.05
2000	1,462.82	360.43	4,493.53	162.19	2,990.46	198.23
2001	1,541.18	365.13	4,875.00	162.84	3,315.30	202.28
2002	1,611.73	368.70	5,354.07	157.80	3,513.26	210.90
2003	1,724.70	N.A.	6,177.80	N.A.	3,766.90	N.A.

Sources: National Bureau of Statistics, *China Statistical Yearbook 2003* (Beijing: China Statistics Press, 2003), pp.55, 124 (figures for 1980 to 2002); *Statistical Communiqué of the People's Republic of China on the 2003 National Economic and Social Development*, National Bureau of Statistics website, http://www.stats.gov.cn/english/newrelease/statisticalreports/t20040303_402133921.htm (figures for 2003).

Service-sector infra-structure: Tourism, real estate, construction, training and household services had also been seriously affected. Over 100 million workers were engaged in these. According to statistics from the National Tourism Administration, over 6 million people directly worked for the tourism industry. Among them, part-time workers were the most vulnerable group to be laid off. Employment in related industries would definitely be affected as a result of the multiplier effect. The epidemic also brought a serious challenge to employment in urban services, business and retail trade, catering, passenger and freight transport sectors. In hard hit regions, the social service-sectors were on 'shutout' or semi-'shutout'. Employees engaging in the retail trade business were forced to go on vacations or trickled back to their hometowns. The aviation and railway industries cut flights and trains since demand for transport had dropped. Some major retail outlets HRM departments laid off their part-time workers, while some privately-owned family stores collapsed (Field interviews, Summer 2003).

Migrant workers: Migrant workers were the hardest-hit employment group.[7] A big number of migrant workers in small- and medium-sized restaurants and entertainment venues were laid off when the government ordered a closure of 'all entertainment business involving mass public gatherings' – cinemas, theatres, internet cafes, and

karaoke bars until the outbreak of SARS was brought under control. According to estimates by the Ministry of Agriculture, around 8 million peasant workers of the over 100 million working in urban and prosperous areas had concurrently trickled back to rural areas, accounting for 8 percent of the rural migrant working population (Guang and Zheng, 2005).

Laid-off and unemployed: The second hardest hit group was the laid-off (*xiagang*) and unemployed (*shiye*) workers in the parts of the service-sector directly or indirectly affected. According to the report on post-SARS employment situation, as many as 15 million laid-off workers were re-employed in flexible employment patterns (ibid). The big impact to the service and catering sector may lower their incomes or even jolt them out of employment again. College graduates had notably tough employment prospects as well. Universities produced 2.12 million graduates in 2003, a number that had exploded because of the nation's campaign to expand college enrollment four years ago. These avid job hunters had the same gloomy prospects in the job market. Since late April 2003, almost all recruitment activities were delayed or canceled. As a result, consultation, interviews and recruitment for college graduates were suspended. Enterprises had stopped their plan to recruit new blood from campuses. It was estimated that the employment rate among 2003 college graduates would be lower than 65 percent of 2002's figure.

Labour supply: A report from the Development Research Centre of the State Council (DRC) showed that China's labour supply had peaked in recent years (*China Daily*, 24 April 2003).[8] In 2003, China saw an increase of over two million workers when compared to last year. A significant 70 percent of the new workforce in the past five years found their jobs in the service-sector (Khan and Riskin, 2005). Over the past two

decades, the tertiary industry has on the whole maintained a much greater capacity in bringing out jobs than the primary (natural resources-based economic sectors such as agriculture and mining) and secondary industries (mainly manufacturing and processing businesses) (*People's Daily*, 25 June 2002; Xinhua News Agency, 16 June 2003).[9] The service industry has become a major channel for surplus labourers. Table 6 shows that its share of the 'employment pie' increased from 13.1 percent in 1980 to 28.6 percent in 2002 (see table 12).

Table 12: Share of GDP and Employment by Industries, 1980-2003

	Primary Industry		Secondary Industry		Tertiary Industry	
Year	GDP (%)	Employment (%)	GDP (%)	Employment (%)	GDP (%)	Employment (%)
1980	30.1	68.7	48.5	18.2	21.4	13.1
1981	31.8	68.1	46.4	18.3	21.8	13.6
1982	33.3	68.1	45.0	18.4	21.7	13.5
1983	33.0	67.1	44.6	18.7	22.4	14.2
1984	32.0	64.0	43.3	19.9	24.7	16.1
1985	28.4	62.4	43.1	20.8	28.5	16.8
1986	27.1	60.9	44.0	21.9	28.9	17.2
1987	26.8	60.0	43.9	22.2	29.3	17.8
1988	25.7	59.3	44.1	22.4	30.2	18.3
1989	25.0	60.1	43.0	21.6	32.0	18.3
1990	27.1	60.1	41.6	21.4	31.3	18.5
1991	24.5	59.7	42.1	21.4	33.4	18.9
1992	21.8	58.5	43.9	21.7	34.3	19.8
1993	19.9	56.4	47.4	22.4	32.7	21.2
1994	20.2	54.3	47.9	22.7	31.9	23.0
1995	20.5	52.2	48.8	23.0	30.7	24.8
1996	20.4	50.5	49.5	23.5	30.1	26.0
1997	19.1	49.9	50.0	23.7	30.9	26.4
1998	18.6	49.8	49.3	23.5	32.1	26.7
1999	17.6	50.1	49.4	23.0	33.0	26.9
2000	16.4	50.0	50.2	22.5	33.4	27.5
2001	15.8	50.0	50.1	22.3	34.1	27.7
2002	15.4	50.0	51.1	21.4	33.5	28.6
2003	14.8	N.A.	52.9	N.A.	32.3	N.A.

Sources: National Bureau of Statistics, *China Statistical Yearbook 2003* (Beijing: China Statistics Press, 2003), pp.56, 124 (figures for 1980 to 2002); *Statistical Communiqué of the People's Republic of China on the 2003 National Economic and*

Social Development, National Bureau of Statistics website, http://www.stats.gov.cn/english/newrelease/statisticalreports/t20040303_402133921.htm (figures for 2003).

Employment policies: The rapid development of individual and private businesses had also contributed greatly to the country's employment efforts (Warner, 2005).[10] Statistics indicated that 30 million urban residents, representing 40 percent of the total increase in urban employment, found jobs in the private sector from 1990 to 2001. However, since China's catering, commerce, and social service industries were worst hit by the SARS epidemic, and many small and medium-sized enterprises had to shut down their business which inevitably led to a sharp decrease of demand for labour, China had implemented the most extensive tax exemption system in a bid to support industries affected by SARS (*People's Daily*, 24 May 2003).[11] Airlines, the catering industry, hotels and taxi companies would benefit from the exemptions. The measures were meant to help medium- and small-sized enterprises continue to absorb labour in China, as they provided jobs for 75 percent of the urban population (Field interviews, Spring and Summer 2003).

Concluding Remarks

From the evidence we have presented above, we may tentatively conclude that the overall impact of SARS on the Chinese economy in the main urban areas, other things being equal, was and will remain problematic, given the lack of independent assessment and the caveats we have expressed throughout this article; however, it is equally observable that the effect on employment in the service-sector, specifically in the hotel industry was, as we have seen, without doubt relatively *negative in the short-*

term, at the time. Both quantitative, as well as the qualitative, data we have gathered – primary (our own field interviews) and secondary (mostly official statistics) - we would argue - points in this direction. The economy (and employment) bounced back as *positive feedback* via optimistic media reports amongst other factors fed into the system.

One can perhaps cautiously interpret the macro-economic data as either telling us that the trend was hardly dented by the 'SARS effect', as the GDP growth rate, it was claimed, touched over 9 percent in 2003, at the end of the day; on the other hand, we may decide it may have accentuated key micro-economic imperfections noted above, even if only relatively. We are aware that any remarks must be highly qualified and tentative, given the limitations of this study we have acknowledged above.

Many policy makers had thought in the past that the expansion of service-industries employment, such as in the hotel industry or any other, would create a positive and stable employment equilibrium and compensate for structural reform. However, the authorities may, we believe, have to re-consider their strategy and continually be on their guard against unforeseen circumstances. Erosion of secondary as well as primary sector employment may sometimes be compensated by counter-strategies to create jobs in services; these may not always be as deep rooted as policy-makers believe to be the case.

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Endnotes

[1] Jiang Yanyong, former chief of surgery for the #301 military hospital in Beijing and a Communist Party member, made the disclosure in an e-mail to a state-run television station. The *Wall Street Journal* reported the disclosure on April 9, 2003.

[2] The two officials were Party Secretary of the Ministry of Health, Zhang Wenkang, and Deputy Party Secretary of Beijing, Meng Xuenong.

[3]In recent years, income generated by tourism during week-long holidays, such as the Labour Day Holiday and National Day, though as high as 30 billion yuan (US$3.6 billion), accounted for less than 0.3 percent of the total economy.

[4] It was noted that the telecommunications and medical industries are in need of labour, as are shopping websites, restaurants with delivery services and express delivery companies. China's economic hub, Shanghai, is capitalizing on the situation, employing 15,000 laid-off workers in the public hygiene and environments fields. Liaoning, northeast China's important industrial base, plans to provide 100,000 jobs for laid-off workers

[5] China's actual FDI surpassed the United States for the first time in 2002 and became the world's largest. According to the Ministry of Commerce, it rose 12.51 percent to US$52.74 billion. Actual FDI in China hit US$13.09 billion in the first quarter of 2003, up 56.7 percent from a year earlier.

[6] Jiuzhaigou was listed as a 'world heritage site' by UNESCO in 1992. It joined the international protection network of 'man and biosphere' in 1997. Yellow Dragon joined 'man and biosphere' in 2000.

[7] China's Fifth Population Census reported 121.07 million internal migrants as of the year 2000. See 2000 Nian Zhongguo Nongcun Liudong Renkou Xin Tezheng (New Characteristics of Rural Floating Population in China in 2000) published by National Bureau of Statistics of China (2001). Among them, more than 70 per cent were rural-urban migrants, equivalent to 85 million, though a more commonly cited figure in official speeches and public media is 100 million. These migrants are at their most economically-active ages – almost 70 per cent are between the ages of 15 to 49 and 20 per cent are between 25 to 29.

[8] China's employment population reached 737.4 million in 2002, absorbing 7.2

million more employees than the previous year, according to the latest data from the National Bureau of Statistics.

[9] In terms of each industry's contribution to the increase of China's employment, the three have been largely the same in 1979. But by 2000, the primary, secondary and tertiary industries have each contributed 37, minus 39 and 105 percent to the employment increase in the year. Service industry has become the major channel for new labour absorption.

[10] The evolution of a nascent labour market has changed both institutions and behaviour. See Warner, M. [ed.] (2005) *Human Resource Management in China Revisited*, London: Routledge.

[11] South China's Guangdong Province, the first area hit by SARS, publicized tax exemption policies that were expected to trim 900 million yuan from tax revenue. Other areas, such as Shanghai, Beijing, Shanxi Province and Henan Province, have followed suit with similar tax policies.