

Adjustments to Minimum Wages in China: Cost-Neutral Offsets

Les ajustements aux salaires minimum en Chine : des hausses à coûts nuls

Ajustes del salario mínimo en China: compensaciones a costo neutro

Jing Wang et Morley Gunderson

Volume 70, numéro 3, été 2015

URI : <https://id.erudit.org/iderudit/1033408ar>

DOI : <https://doi.org/10.7202/1033408ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

Département des relations industrielles de l'Université Laval

ISSN

0034-379X (imprimé)

1703-8138 (numérique)

[Découvrir la revue](#)

Citer cet article

Wang, J. & Gunderson, M. (2015). Adjustments to Minimum Wages in China: Cost-Neutral Offsets. *Relations industrielles / Industrial Relations*, 70(3), 510–531. <https://doi.org/10.7202/1033408ar>

Résumé de l'article

En s'appuyant sur des entrevues qualitatives menées auprès de travailleurs, de gestionnaires et d'inspecteurs du travail en Chine, nous examinons comment les employeurs s'ajustent, souvent de manières subtiles, aux hausses du salaire minimum. Nos résultats mettent en lumière une « loi aux conséquences inattendues », à savoir que les effets de ces hausses sont souvent « annulés » ou compensés par de subtiles ajustements, tels que des réductions dans les avantages sociaux ou dans le temps supplémentaire, ou encore, dans les primes pour temps supplémentaire, lesquelles sont, par ailleurs, valorisées par les employés. Aussi ces derniers ont souvent le sentiment que leurs conditions ne se sont pas améliorées, en dépit de hausses du salaire minimum, à cause de ces effets d'ajustement.

L'étude pointe également vers certaines explications concernant l'effet réduit ou nul du salaire minimum sur l'emploi en Chine. L'absence d'application peut, sans doute, être une de ces raisons, mais les employés interviewés semblent bien au fait du salaire minimum légal tandis que, de leur côté, les employeurs ne veulent pas se retrouver aux prises avec des conflits sur cette question. Pour les employeurs qui pourraient être affectés par de telles hausses, la hausse des coûts se trouve amoindrie par les effets compensateurs mentionnés. Ceci a pour résultat que le salaire minimum ne semble pas affaiblir la position concurrentielle des employeurs chinois.

Adjustments to Minimum Wages in China: Cost-Neutral Offsets

Jing Wang and Morley Gunderson

Drawing on qualitative interviews with employees, employers and government labour inspectors, this article examines how employers respond to minimum wage legislation in China. We find employers in China are able to offset the minimum wages by freezing wage increases and reducing the non-wage components of compensation as well as overtime work. Due to this “cost-neutral” compliance in China, minimum wages do not seem to have any impact on employment and work hours. Our findings provide valuable insights into how minimum wages are working at the enterprise level and help us understand the mixed findings concerning the effect of minimum wages in China.

KEYWORDS: minimum wages, enforcement, adjustment mechanisms, fringe benefits, overtime.

Introduction

The impact of minimum wages is one of the most studied areas in labour economics. The majority of the literature involves econometric analysis that focuses on the ultimate impact on employment or hours worked (Neumark and Wascher, 2008). Few studies have examined the mechanisms whereby employers adjust to minimum wages. Yet such mechanisms may be important for shedding light on a variety of phenomena. The adjustments, for example, may reflect the “law of unintended consequences” whereby the affected parties respond to policy initiatives in ways that can offset their intended impact or have other unintended consequences. The adjustments may also help explain the contradictory evidence that prevails in this area with many studies finding no adverse employment effect or even a positive employment effect, while others find adverse employment effects. For example, reviews by Card and Krueger (1995), Metcalf (2008) and others tend to find no effect and occasionally even a small positive effect. Studies by Neumark and Wascher (2008) find adverse employment effects. Mixed evidence is also found in reviews of the minimum wage literature in developing countries such as Cunningham (2007), Kristensen and Cunningham (2006), Maloney and Mendez (2003), Lemons (2007) and World Bank (2006).

Jing Wang, Associate Professor, School of Human Resource Management, York University, Toronto, Ontario, Canada (jingwan@yorku.ca).

Morley Gunderson, Professor, University of Toronto, Toronto, Ontario, Canada (morley.gunderson@utoronto.ca).

As discussed subsequently, minimum wage legislation in China is relatively new compared with developed countries. China first had its *Enterprises Minimum Wage Regulations* in 1993, while the *Trade Boards Act 1909* started to develop minimum wage regulation in Britain and around the world (Deakin and Green, 2009) and the United States had its first minimum wages in 1938. In spite of the more recent development of minimum wage initiatives in China, the debate among academia and policy-makers in China over its impact is the same as in the developed and developing countries. Minimum wages are also found to have a mixed impact in the limited Chinese literature. Negative effects on employment are found in Ding (2010), very small negative effects in Wang and Gunderson (2011), no effect in Wang and Gunderson (2012) and positive effects on employment in Li and He (2010) and Luo (2007a). The existing literature on China, however, has not empirically examined the possible explanations for this mixed effect or the “real world” adjustments that are occurring in response to the minimum wage legislation.

This paper looks at this issue and attempts to shed light on the various adjustment mechanisms that can occur in China to offset the effects of minimum wage increases. To our knowledge, this is the first systematic qualitative study of the impact of minimum wages in China and the first that focuses on how employers respond to minimum wage increases. More specifically, our investigation contributes in three ways to our understanding of minimum wages in China. First, the data presented here relate to one of the first studies on how employers are responding to the minimum wage increases in China. While research and studies of minimum wages in China have expanded quickly during the past decade, empirical studies of enforcement have not started. Our analysis of workers, employers and inspectors from two cities in China offers a rare glimpse of how employers deal with the potential increase of labour cost. The focus on employer compliance is a much-needed complement to research on China’s minimum wage legislation, as it shows how employers cope with employment legislation and how government enforcement efforts change their attitudes and behaviours vis-à-vis legislation.

Second, our investigation of minimum wages adjustment goes beyond the dichotomy of compliance and non-compliance in an attempt to provide a deeper understanding of the effect of the minimum wage. By showing through the data that employers have various ways to cope with minimum wage increases, we provide possible explanations for the inconsistent findings on the impact of minimum wages both in China and other countries. Employers’ profit-maximizing coping strategies in China accord with much of the research in the UK informal sector (e.g. Edward , 2004; Lam *et al.*, 2006; Low Pay Commission, 2011, 2012; Metcalf, 2008). That research emphasized the wide array of adjustment strate-

gies that can exist in addition to (or instead of) the conventional reduction in employment emphasized in basic economics. Those adjustment strategies include: non-compliance especially in informal sectors where there are no written contracts and pay is in the form of cash; work intensification; pass-through to higher prices; cost saving through a more rapid filling of vacancies; absorbing some of the costs through reduced profits; and reduced fringe benefits (albeit such fringe benefits are not prominent in the low-wage labour market of the UK).

Finally, research on the Chinese case offers important insights into the impact and enforcement of minimum wages in developing countries and emerging markets. Increased attention is being paid to minimum wage regulations in these countries. As they open their markets to global competition, minimum wages are regarded as a crucial component of labour standards that are necessary to provide basic protection for vulnerable individuals. This is evident in the various minimum wage conventions, resolutions and implementation guidelines promulgated by the International Labour Organization (ILO, 2008). Various international articles (e.g. ILO 2014: 9-10; Laliberté, 2012) also emphasize the importance of minimum wages as a counterbalance to market-oriented reforms, many of which have led to growing wage inequality and the use of vulnerable workers in non-standard employment. The evidence presented here, however, suggests that employers can mitigate the cost implications of minimum wage increases through various cost-neutral coping strategies such as reducing fringe benefits, freezing wage increases, and reducing pensions and health insurance.

The paper begins with some contextual and theoretical reference points. First, we provide a brief overview of the evolution of minimum wage regulation in China, followed by a theoretical discussion of the various mechanisms of adjustment to minimum wages. The qualitative methodology is then outlined, followed by a presentation of findings on individual employees, employers and inspectors. Our discussion and concluding section analyzes the findings and contributions with reference to earlier theoretical themes.

Minimum wage regulation in China

Minimum wage regulations in China are relatively recent (associated with the transition to a more market-oriented economy) and their evolution has involved increased stringency. The first initiatives were taken under the *Enterprises Minimum Wage Regulations* of 1993 where local governments were advised to establish minimum wages and adjust them at most once every year. Coverage was restricted to full-time workers and to urban enterprises. The regulations became much more stringent in 2004 under the *Minimum Wage Regulation* where local governments were required to establish and adjust minimum wages at least once

every two years. Coverage was extended to non full-time workers and to towns and villages. Local governments were required to set minimum wages according to a set of criteria related to factors such as local economic development, employment, average wages, consumer prices, minimum living standards, and the social insurance and housing funds to which workers contribute. Penalties for violations were increased substantially and the new law specifically stated that employers were not to include overtime pay or supplementary benefits as part of the wage.

The new legislation led to substantial increases in minimum wages as well as in the frequency of their adjustment, especially in the central and western parts of China (Yang and Zhu, 2012). Before 2004, provinces in the central and western parts of China seldom adjusted their minimum wages. For example, Gansu and

TABLE 1
Minimum Wages in China from 1994 to 2013

Year	Minimum wages (yuan/weighted)	Highest (yuan)	Lowest (yuan)	Consumer Price Index	Real Minimum wage in 2013 yuan	Average wage (yuan)	Minimum wage/average wage (%)
1994	176	320	120	124.1	309	378	47
1995	182	320	120	117.1	273	458	40
1996	194	380	120	108.3	268	517	38
1997	209	380	125	102.8	281	539	39
1998	212	380	125	99.2	288	623	34
1999	256	450	140	98.6	352	696	37
2000	270	450	170	100.4	370	781	35
2001	288	490	170	100.7	392	906	32
2002	318	535	190	99.2	436	1035	31
2003	330	570	190	101.2	447	1170	28
2004	398	684	235	103.9	519	1335	30
2005	413	690	235	101.8	529	1530	27
2006	498	780	270	101.5	629	1750	28
2007	550	850	320	104.8	663	2078	26
2008	616	1000	390	105.9	701	2408	26
2009	616	1000	390	99.3	706	2687	23
2010	753	1120	500	103.3	835	3045	25
2011	878	1310	500	105.4	924	3483	25
2012	996	1500	600	102.6	1022	3897	26
2013	1285	1620	1030	102.6	1285	4290	30

Note: Minimum wages are from China Labour Net. Cost of living, average wage data are from *China Statistic Yearbook* 1995-2014. All wages are in nominal terms except for the real minimum wage which is in 2013 yuan.

Qinghai provinces only adjusted once during the ten-year period from 1994 to 2003. But from 2004 to 2013, these provinces increased their minimum wages much more frequently, with both Gansu and Qinghai provinces adjusting them six times. As the frequency of adjustments increased, so did the nominal value of minimum wages. The average minimum wage in 2003 was 330 Chinese *yuan*, which was an 87.5% increase from the average of 176 *yuan* in 1994. However, the average minimum wage increased 223% from 398 Chinese *yuan* in 2004 to 1285 *yuan* in 2013 (China Labour Net, 2015). When calculated in 2013 *yuan*, the minimum wage in China increased 147% from 519 *yuan* in 2004 to 1285 *yuan* in 2013. Despite the significant increase in nominal value, the relative value of minimum wages (i.e. the percentage of minimum wages to average wages) has not increased since 1994. As indicated in Table 1, in the 1990s, minimum wages were around 40% of average wages, with a high of 47% in 1994. The percentage slipped to a low of 23% in 2009, increasing gradually to 30% in 2013. Figure 1 shows the growth of minimum wages and the ratio of minimum wages to average wages from 1994 to 2013.

Another notable feature of minimum wages in China is the extensive difference across provinces. Minimum wages are higher in provinces along the prosperous East coast of China such as Guangdong, Zhejiang and Jiangsu provinces and lower in the less developed central and western provinces such as Anhui, Gansu, and Jiangxi. Table 1 shows the average minimum wages in China from 1994 to 2013, as well as the highest and lowest minimum wages. It highlights that in 1994, the highest, 320 *yuan*, was in Guangdong province and the lowest,



120 *yuan*, in Shanxi and Hubei province, for a ratio of 2.67 for the highest versus the lowest. In 2013, the highest minimum wage was 1620 *yuan* in Shanghai and the lowest 1030 *yuan* in Guizhou province, with the ratio decreasing to 1.57. The large variation reflects the vast differences in regional economic development across China.

Adjustment mechanisms

The conventional adjustment mechanism emphasized in neo-classical economics is for employers to reduce their employment and/or hours of work for those affected by the minimum wage increase. This occurs through two main mechanisms. Firms may substitute other inputs for the labour whose cost has increased because of the higher minimum wage, and they may reduce their output (and hence all inputs including minimum wage workers) in response to the higher costs. These are, respectively, the conventional substitution and output effects of basic economic theory. These conventional adjustments can be subtle and occur slowly especially if they involve the use of different processes that require less low-skilled minimum wage labour. The output adjustment, for example, can occur in the form of plant closures or firms relocating to other lower-wage jurisdictions. Research, however, does not find consistent evidence on this adjustment mechanism (Card and Krueger, 1995; Neumark and Wascher, 2008).

Metcalf (2008) in his review article shows that the lack of evidence on this effect is due to other mechanisms, which can vary across employers, and that can also be at work to alter the effectiveness of minimum wages. The discussion here will outline those mechanisms sequentially, beginning with non-compliance and cost-offsets such as cutting back on fringe benefits, working conditions, overtime work and overtime pay, and training hours. The theoretical framework involves what Hirsch, Kaufman and Zelenska (2015) term the “channels of adjustment” alternative to the conventional neoclassical economics model with its emphasis on reductions in employment. In addition to non-compliance, those alternative channels include “hours, prices, profits, training, work effort, human resource practices, operational efficiencies, and internal wage structures” (Hirsch, Kaufman and Zelenska, 2015: 215)

Non-compliance

Minimum wages will have no effect if they are not enforced and hence not adhered to by those employers. According to the Low Pay Commission (2012), employers gave two main reasons for paying their employees less than national minimum wages in the UK: they could not afford to pay and they were unwilling to pay. Employers who do not want to pay believe that they need to keep labour

cost low to remain competitive in the market, their employees are willing to accept low wages in exchange for working experience and training opportunities to help them find a job elsewhere, and some part-time jobs should not be covered by minimum wages (IPC, 2012: 4). This line of reasoning tends to apply to employers in informal sectors where non-compliance is widespread (IPC, 2012) in the UK.

Offsets

Minimum wages will have no effect on employment if the cost increase associated with the minimum wage is offset by reductions in the non-wage component of the compensation package (Chen, 2001). This can be especially important for some employees where the non-wage component of the compensation package can be significant, involving clothing allowances, subsidized meals, travel allowances, flexible work arrangements and shift and overtime premiums. Many employers pay less than minimum wages in the UK because employees value those non-wage components and see them as an important part of the overall reward package. Ram *et al.* (2001) argue that minimum wage increases can force employers to drop these perks and imperil the non-wage element of the overall reward package.

Altering working conditions can also be an important adjustment mechanism to offset part of the cost increase from minimum wage. This can occur in various forms such as increasing the pace of work or reducing formal break times or informal “downtimes” at work. Again, these adjustments are extremely difficult to prohibit as part of enforcement.

Another adjustment that can also occur is the training which can be regarded as a non-wage component of the job. On the one hand, minimum wage increases may induce employers to enhance training so as to increase the productivity of the worker to be commensurate with their higher pay (Bertola, 2009; Metcalf, 2008). Also, minimum wage increases would disproportionately increase the wages of less experienced workers. To the extent that their lower pay created an incentive for employers to promote them over their more experienced but higher paid workers, then raising their pay would reduce that incentive. This in turn can also encourage the more experienced workers to train the less experienced ones whose higher pay after the minimum wage increase makes them less of a threat to compete for promotions (Eguchi, 2010). On the other hand, higher minimum wages may reduce training to the extent that employees are unable to “pay for” the training by accepting a lower wage in return for the training – the minimum wage now puts a lower threshold below which wages cannot fall. In essence, it is an empirical proposition as to whether training will increase or decrease as a result of minimum wages. The empirical evidence on the effect

of minimum wages on training comes mainly from the US and the UK. Negative effects are found in Grossberg and Sicilican (1999), Hashimoto (1982), Neumark and Wascher (2001), although Acemoglu and Pischke (2001) and Arulampalam, Booth and Bryan (2004) find no effect.

A further adjustment may also occur in the form of “shock effects” on management whereby the cost increase associated with the minimum wage may shock management into changing work and other practices to improve efficiency and organizational capabilities and in order to grow or develop the business (Cooke, 2005; Hyslop *et al.*, 2012; Lee and McCann, 2011; Metcalf, 2008; Sai and Yin, 1995). Economists tend to downplay such an adjustment mechanism since it implies that the firm was not behaving optimally in the first place. If it pays to take these actions after a minimum wage increase, then it would have paid firms to do them without the minimum wage increase. Nevertheless, it seems reasonable to believe that the minimum wage increase could serve as a catalyst to induce such efficient changes.

Shock effects may also affect workers in that the wage increase may enhance their motivation, effort and commitment and reduce costly turnover. This is akin to efficiency wages whereby wage increases can “pay for themselves” by inducing positive actions on the part of employees. It is a reversal of the conventional economic argument that productivity determines pay, in that it allows for the reverse effect whereby pay affects productivity.

Clearly, there is a wide array of adjustment mechanisms that may occur in response to a minimum wage increase, and they may vary across different employers. Many of these may explain why adverse employment effects may not occur as conventionally predicted by basic economic theory. In the next section, we outline the methodology used to obtain qualitative information on a number of these adjustment mechanisms in the Chinese context, with particular attention focused on those that may offset the conventional adverse employment effects.

Methodological approach

The data come from interviews with employees, employers and labour inspectors, conducted from May to August 2011 in two cities in eastern China -Tianjin and Hangzhou. Thirty-five in-depth, semi-structured interviews (16 with employees, 15 with employers and 4 with labour inspectors) were conducted. This is a prosperous and developed region in the country so it attracts substantial foreign investment and disproportionately employs low-wage and low-skilled workers, who will be most impacted by minimum wage increases. Our choice of location also aligns with most published studies on minimum wages in China which also focus on the Eastern region (Li and He, 2010; Luo, 2007a, 2007b;

TABLE 2
City Statistics in 2013

City	Minimum Wage (yuan)	Unemployment Rate	GDP per Capital (yuan)	Population (in 10,000)	Area Km ²	Consumer Price Index (2012=100)
Tianjin	1500	3.6%	99607	1472	11947	103.1
Hangzhou	1470	1.85%	94566	884	16596	102.5

Source: Zhejiang Statistics Information Net <http://www.zj.stats.gov.cn/>

Tianjin Statistics Information Net <http://www.stats-tj.gov.cn/>

Ding, 2010; Wang and Gunderson, 2012). Furthermore, the two cities represent most employers in the Eastern region of China. They are both industrial cities with diverse sectors such as manufacturing, agriculture and textile. Both cities are also logistics hubs for coastal China. Table 2 lists some economic and social indicators of the two cities. By December 2013, minimum wages were 1500 Chinese *yuan* in Tianjin, and 1470 Chinese *yuan* in Hangzhou. The GDP per capita for Tianjin in 2013 was 99,607 Chinese *yuan*, while it was 94,566 *yuan* for Hangzhou.

To gain a deeper understanding of the various adjustment mechanisms, our interviews involved different stakeholders. Labour inspectors are in charge of monitoring the implementation of minimum wage regulation in each firm. They were interviewed to provide insights into the enforcement and compliance issues as well as how employers may have adjusted their compensation practices to offset the effect of minimum wages. Employers were obviously interviewed to obtain insights into the extent to which they regarded minimum wages as a binding constraint, and how they may adjust to them perhaps in subtle fashions. Since employers may be reluctant to reveal some practices that may destroy their reputation as good employers or expose them as conducting illegal activities, we also interviewed employees about certain employer practices such as fringe benefits and work arrangements, as well as their awareness of minimum wages and how the latter may affect their well-being. Employees are all low-skilled operators in the manufacturing sector who tend to be the lowest paid in their respective companies and thus are most likely to be affected by minimum wage increases. The number of interviews was determined in part by our data collection situation. After interviewing 35 participants, we reached diminishing returns in terms of not being able to obtain any significant new information, suggesting a saturation point (Lincoln and Guba, 1985). The sample size is also in line with previous qualitative studies, which found that the average sample size needed to reach a saturation point beyond which little new information is obtained is around 20 participants (Lindebaum and Fielden, 2011). Among the 16 employees

interviewed (Table 3), 9 were men aged between 22 and 42, and 7 were women aged between 24 and 38. The highest education level achieved by the workers is high school graduation. Of the 15 employers interviewed, 10 were Chinese citizens and five were foreigners; this may capture any different response they may have to minimum wage increases, perhaps reflecting a tendency to follow the practices of their country. The four labour inspectors are all men. As indicated in Table 3, the employees and employers were distributed across the various ownership types in China. This is important because the responses to minimum wage increases may differ across the ownership types, possibly reflecting their different human resource and management practices as well as political constraints.

All the participating employees and some employers were recruited through the local re-employment service at the Municipal Human Resources and Social Security Bureau. This allowed us to target the participants based on their expected ability to provide insights into the adjustment mechanisms at play. Employees were randomly selected when they visited the re-employment centre. Among 168 selected employees, 140 were non-professional and worked at entry-level jobs, with 16 of the 140 agreeing to be interviewed. For the HR managers, 120 were randomly selected and only 7 of them agreed to be interviewed. Eight more employers and four labour inspectors were contacted by the first author directly from her previous human resource professional network in China. All the 12 individuals contacted agreed to be interviewed. Prior to the interviews, the author informed the participants of the rationale for the study. Participants were also told that the authors would not reveal any personal or company information for reasons of confidentiality and safety. They were instructed not to do so either. All of the interviews were conducted outside the participant's workplace and at a place that the participants suggested, which was either at a restaurant or a coffee shop.

TABLE 3
Interviewees

	Employee		General Manager/Human Resource manager		Labour Inspector	
	#	Ownership	#	Ownership	#	Ownership
Tianjin (Tianjin)	3	State	1	State	2	N/A
	3	Foreign	5	Foreign		
	2	Hong Kong/ Taiwan/Macau	2	Hong Kong/ Taiwan/Macau		
Hangzhou (Hangzhou)	2	State	1	State	2	N/A
	2	Foreign	3	Foreign		
	4	Hong Kong/ Taiwan/Macau	3	Hong Kong/ Taiwan/Macau		
Total	16		15		4	N/A

The interviews lasted from 30 to 35 minutes, with 25 of the interviews being audio-recorded while 10 participants preferred not to be recorded (including all four labour inspectors). For these, the interviewer took notes. In order to ensure the accuracy of the notes, the interviewer summarized the statements to the participants for correction every five minutes. The main purpose of the interview was to invite the participants to narrate anything they thought was relevant to minimum wages and the associated adjustments. They were encouraged to list all the changes they experienced related to such factors as human resources practices, compensation and benefits, work schedules, living standards, enforcement issues and violation of minimum wage regulation, as well as complaints filed by employees. All interviews were conducted in Chinese and then transcribed by the first author into English. The English transcripts were translated back into Chinese by a research assistant and this was compared with the original tape. Slight modifications were occasionally made if there was any discrepancy.

We used a template approach (King, 2004) to analyze our data. The template analysis is widely used as a technique to analyze textual data in various disciplines (Au, 2007; Poppelton *et al.*, 2008; Randall, 2007). It is appropriate for this study because of its flexibility in coding different qualitative data. In template analysis, themes are stipulated in advance to reflect specific areas of interest but they can be modified as researchers understand the data better (King, 2004). These themes are then transferred to hierarchically-organized codes. Higher-order codes are often predefined based on the literature and interview data. Lower-order codes are developed through a more iterative process of reading through the data. For the purpose of our study, we organized the themes around issues related to compliance, offsets, reduced overtime and training.

Findings

Compliance

Enforcement of labour legislation is generally regarded as weak in China (Chen, 2001; Deng and Li 2012; Rawski, 2006). Nevertheless, there have been initiatives designed to enhance enforcement. For example, non-government organizations have informed workers of their rights, and some local governments have established hotlines for reporting violations and have imposed large fines that have attracted public attention (Cooke and Rubery, 2002). These appear to be initial first steps in setting a foundation for the rights of workers (Cai, Park and Zhao, 2008: 174). Thus, in spite of the fact that enforcement and compliance with legislation tend to be a concern in developing countries like China, this did not appear to be a major issue from our interviews as most employees appeared to be aware of the minimum wage. They would not accept a job or work on a job that paid less than minimum wages. One worker from Hangzhou said:

I know about the minimum wages from the newspaper. It is just a piece of information. It has no impact on us, because my salary is more than that already. Who can live now only on minimum wages? We are not like our parents' generation who are willing to work no matter what. We want more.

The employee's comment is reflected in an employer's complaint:

We did not pay much attention to minimum wages. Now the job candidates are well aware of these numbers. We know if we offer less than minimum wages, they won't even interview with us. We have to pay much more than minimum wages to attract candidates. What makes them think they are entitled to that much money? They may not know that we are paying not only minimum wages but also the related government required benefits. That's a burden on us.

In order to verify that employers are paying minimum wages, we interviewed several labour inspectors in the two cities. One of them told us: "We seldom see cases where the employer does not pay minimum wages. If the case is money related, it is more likely about severance pay and back-pay". Another inspector from the other city said: "If employers can pay and want to pay, they pay more than minimum wages. If they cannot and do not want to pay, they pay nothing at the time [i.e., they postpone pay]".

However, this apparent compliance is not the full picture of minimum wage enforcement in China. Labour inspectors pointed out to us that they did not exactly know the situation in informal sectors such as hair salons, massage parlours, and domestic work. The employers of these workers pay cash to their employees and do not register with the government or report or file wages and salary forms to the local Human Resources and Social Security office. All of the inspectors share the same concern and strongly believe that non-compliance is widespread in the informal sector. One inspector told us:

Employees in that sector are not like their counterpart in formal sectors. They are from the countryside without residence permits to live and work here. Although they know about minimum wages, they do not want to ask for wage increases if they are paid below it since the boss can simply fire them and hire new ones who want to accept the low wages.

Offsets

If non-compliance with minimum wages in the formal sector is not a major concern, then there must be other adjustment behaviours to explain why minimum wages do not have a negative impact in China in this sector. Our data reveal that employers often offset the cost of minimum wage increases by adjusting other elements in the compensation package such that minimum wage workers often do not benefit from the wage increases. As minimum wages go up, employees

often lose fringe benefits, training opportunities and job security. Although regulations in February 2004 specifically prohibited including overtime pay, employer pensions, housing funds and medical contributions as part of the wage package and altering them in response to minimum wage increases, such regulations are extremely difficult to enforce. Including the value of such items in the wage package to make it higher than the minimum wage are common employers' responses to minimum wage regulations (Tian, 2009). A worker from Tianjin told us:

I had a 13th month salary years ago, but now it is gone; I had free snacks at midnight when I was on the night shift, but now it is gone. Is this related to minimum wage increase? Of course, it is. Otherwise, why? Our company performance is as good as before, we are as busy as before. Everything is the same. The only thing is the minimum wage. We did have some wage increases, but we lost more.

Other employees had even worse experiences than losing their snack and 13th month salary. Some even expressed that they do not want the minimum wage increase because it leads to loss of other benefits. One employee from Hangzhou told us that he had to pay 300 Chinese *yuan* for his dormitory which was free before the recent substantial minimum wage increase in the city. He complained, "the minimum wage was increased by 210 *yuan*, but we had to pay 300 now for sleeping in the dormitory. I prefer not to have this minimum wage thing in this city." They thought negatively of their employers for doing so, but they could not do anything about it. Not providing free accommodation is legal if there is no labour contract clearly indicating that it is to be provided.

When we asked the labour inspectors whether these employers' cost-offset practices are prevalent, they confirmed this and expressed their concerns with other more subtle examples from employers. One inspector said:

Employers are paying above minimum wages, but so what? This does not increase their labour cost a bit. Some employers stop signing labour contracts with new employees because once they sign the contract, they have to report their monthly salaries to us. For those non-reported employees, we do not know how much they are paying. Legally they do not need to sign a long-term employee contract if these workers will be employed less than three months. So you can see these migrant workers come and go quickly in less than a three-month period. Without a labour contract, who knows whether they are paid above or under the minimum wage.

These offsets are so prevalent that even employers did not feel obliged to tell the truth. One employer admitted:

We have to pay minimum wages. You know, we do not want to go to arbitration on these kinds of small things. However, as a medium-sized company, we cannot afford ever-increasing minimum wages if we continue to be generous on benefits. I clearly remember we stopped the Family Day program after 2004. Our medical insurance plan stopped covering a spouse and dependents.

Another employer indicated that they stopped all unnecessary benefits: “We have long wanted to reduce some benefits such as a free trip every year and a gift card on some holidays. But we cannot just do this, we need a reason. There is no better reason than the ever-increasing minimum wages.”

Reduced overtime and training

In addition to cutting benefits, some employers reduced overtime hours that employees generally regard as desirable given the overtime pay premium. An employer from Hangzhou indicated:

We stopped allowing workers to work overtime. Overtime is too expensive especially when employees work on statutory holidays. It is three times the basic salary!!! As minimum wages increase so frequently, how can we afford to pay three times the salary? We only arrange overtime when deemed necessary. We absolutely do not allow overtime on statutory holidays any more.

Obviously, employees noticed this change. One employee from Tianjin said:

When I first came here, I worked overtime a lot. I just went to work whenever I wanted. I liked to work on weekends because I could get double pay. Nearly half of my monthly salary was from overtime pay. However, now we don't have the chances to do overtime any more.

But reducing overtime does not mean that overtime is not necessary. It is just that employers engage in cost-reduction management practices to overcome the minimum wage increase. Some of these adjustments can have negative impacts on employee well-being. When we asked what they would do if overtime was necessary, an employee from Hangzhou told us: “We are still doing overtime when the production line is busy. The difference is that we are not paid the overtime rate because we get days off to make up our overtime hours when production is not busy”.

Forcing employees to take unpaid days off is not prohibited by labour laws in China. It effectively keeps employee salaries at the minimum wage level and reduces labour cost. Another practice, revealed from our interviews, used to avoid overtime pay is to hire temporary workers. One employer from Tianjin told us that they hired large numbers of temporary workers in March of each year when it is normally the busiest time of the year. These workers were all peasants from Hebei province which is adjacent to Tianjin City. They were hired for three months and no labour contract was signed. Employers do not need to pay for pensions, housing funds, unemployment insurance or medical insurance.

As mentioned earlier, employers may be ‘shocked’ into changing practices, increasing their focus on developing more efficient practices and investing in human capital in order to improve productivity. No employers in our interview how-

ever indicated that they implemented programs to increase productivity to the minimum wage level. Instead many employers cut general training as one of the ways to reduce labour cost. An employee from a big company in Tianjin told us:

I heard from my colleagues who joined this company in 1995 or so that they were provided all kinds of training such as Microsoft Office, Time Management, Business Writing and Team Work skills. They were given this training even if they won't use it in their work. Even production line workers received the training in Microsoft Office. Now I have been in the company for two years, I haven't received any of this kind of training except some training from my supervisor on how to do my current work. I am worried that I cannot find a better job if I only know my current work. I wish I'd received some training like how to use a computer so that I can use it to find a job easily if I am laid off by this company.

When we asked the employer from this company about the reasons for reduced training, his answer was very brief, "To reduce labour cost that increased because of the minimum wage." Employers appear not to want to provide general training that is not related to their employees' specific job unless they can pay lower wages in return for the general training.

One inspector expressed his concerns on the effect of minimum wages on workers and the whole society:

Employers always have many ways to keep their labour cost low even with minimum wage increases. From the monthly salary form they send to us, we only check whether the basic wages are above the minimum wages. But we do not know whether their labour cost increases or decreases. I heard some employers keep everything at the minimum such as training, employment relations programs, allowances, insurance and bonuses, everything.... The social security and especially medical insurance system in China is not mature yet. If all employers keep medical insurance at a minimum and stop covering spouses and children, the burden is on workers and the government. It may even jeopardize the stability of the whole society, which is the ultimate aim of minimum wages.

Discussion and conclusion

Minimum wages have long been regarded as an important tool to raise the pay of low-wage workers and improve the well-being of disadvantaged groups. However, research has so far had little to say about the adjustment strategies that employers use to cope with minimum wage increases. Such knowledge is important so as to determine whether or not the benefits of minimum wage increases for those who receive the higher wages are offset or possibly enhanced by the adjustments that employers may use. The benefits may be offset, in part at least, if the adjustments involve changes such as reductions in fringe benefits or

increases in the workload or pace of work, or shifts to more informal work where monitoring for non-compliance is difficult. But the benefits may be enhanced if the adjustments involve increased training or more efficient managerial or human resource practices. Understanding the adjustment strategies may also be important for enforcement to the extent that the adjustments are illegal. Such understanding is also important to determine the ultimate effect on employer costs and hence competitiveness. The majority of minimum wage research analyzes their impact on employment and hours of work, and tends to find mixed results. This study examined how minimum wages are operating at the enterprise level. It is the first step in exploring the possible mechanisms and coping strategies that employers adapt to adjust to minimum wage increases in China. It provides valuable insights into the possible adjustment mechanisms that may be at play in China.

Specifically, our qualitative analysis results highlight the “law of unintended consequences”—the effects of minimum wages are often “undone” or offset by subtle adjustments such as reductions in fringe benefits, overtime and training opportunities that are valued by employees. Employees often feel that they are no better off in spite of minimum wage increases in part because of these offsetting adjustments. Our analysis also contributes to the literature by suggesting possible reasons for the small or zero effect of minimum wage increases on employment that is common in the limited Chinese literature. Lack of enforcement with respect to the wage component of compensation may be a reason, but the employees we interviewed seemed to be well aware of the legal minimum wage and employers did not want to get involved in disputes over this matter. Of potential importance is that the cost increase is mitigated because of the offsetting adjustments for those employers that would otherwise be affected by minimum wages. Overall, the data show that fringe benefits were reduced substantially following minimum wage increases. Employers either stop paying some ‘social’ benefits like shuttle buses, meals, extra month salary bonus and medical insurance coverage, or they include these items in the basic salary. Employers may even switch from employing full-time workers to part-time and temporary workers. Temporary workers who are paid below the minimum wage may also be intimidated from lodging a complaint, fearing reprisals from management especially if there is a large pool of surplus labour willing and able to take their low-wage jobs.

These findings are similar to the limited minimum wage compliance research in developed countries, especially in the UK informal sector. Employers in the UK as well as in China cope with minimum wage legislation by cutting elements in the non-wage component of compensation including fringe benefits (e.g. Edward, 2004; Lam, 2006; Low Pay Commission, 2011, 2012; Metcalf, 2008). This

may account for the lack of an adverse employment effect that is often found in both the UK and China. The profit motive and constraining labour cost are common concerns in both developed and developing countries, and can lead to subtle adjustments to offset costs that otherwise would occur because of minimum wage increases.

While this is the first study (to our knowledge) to use qualitative methods to examine the adjustment mechanisms to minimum wages in China, we regard this as only a first step in this direction. Our study has several limitations which nevertheless offer fruitful avenues for future research. First, our study did not include workers in informal sectors, even though the legislation does not make a distinction between workers in the formal and informal sectors. However, informal employment has grown dramatically in recent decades in China as a result of the massive downsizing in the state sector, the rapid expansion of the private economy, and the large-scale migration of rural workers to the cities (Deng and Li, 2012). Many jobs in the informal sector require relatively low levels of skills and educational qualifications so that the wages in this sector are low (Zhao, 2000). Additional research is needed to shed light on whether minimum wages have an effect on this group of low-wage workers.

Second, additional research is needed to elucidate the extent to which minimum wages affect poverty in China. Our analysis suggests opposing effects. Minimum wages are likely to be sufficiently low that they do not cover basic living expenses or substantially raise wages (which also means they should not substantially reduce employment) such that they are unlikely to alleviate poverty. However, they likely reduce the non-wage aspects of employment and overtime payments and thus could exacerbate poverty. Furthermore, to the extent that the family is the unit of analysis for determining poverty, it is important to determine the position of minimum wage workers in the family unit.

Third, our study did not examine whether the dramatic increase of minimum wages in recent years accounts for any of the growing industrial unrest in China. Such a causal connection would be extremely difficult to establish given all of the other factors that are changing at the same time. But it raises the question as to whether minimum wage increases foster a greater sense of entitlement on the part of workers in China? Future research could examine this interesting issue and shed light on whether protective labour legislation helps workers become aware of their labour rights and start to aggressively assert those rights. This is part of the broader issue in China as to whether progressive reforms serve to placate pressures for additional reform, or simply whet appetites and raise expectations.

References

- Acemoglu, Daron and Jorn-Steffen Pischke. 2003. "Minimum Wages and On-the-Job Training." *Research in Labor Economics*, 22, 159-202.
- Arulampalam, Wiji, Allison Booth and Mark Bryan. 2004. "Training and the New Minimum Wage." *The Economic Journal*, 114 (March), C87-C94.
- Au, Wayne. 2007. "High-Stakes Testing and Curricular Control: A Qualitative Metasynthesis." *Educational Researcher*, 36 (5), 258-267.
- Bertola, Giuseppe. 2009. *Labour Market Regulation: Motives, Measures, Effects*. Conditions of Work and Employment Series, No 21, Geneva: ILO.
- Cai, Fang, Albert Park and Yaohui Zhao. 2008. "The Chinese Labor Market in the Reform Era." In Loren Brandt and Thomas G. Rawski (eds) *China's Great Economic Transformation*. New York: Cambridge University Press, 167-214.
- Card, David and Alan B. Krueger. 1995. *Myth and Management: The New Economics of the Minimum Wage*. Princeton University Press, Princeton.
- Chen, Li. 2001. "Minimum Wage is not Plausible." *21st Century Economic Report*. 2 April.
- China Labour Net. 2015. <http://www.labournet.com.cn/zhbz/list.asp?type=c>
- Cooke, F. Lee. 2005. *HRM, Work and Employment in China*. Routledge: London.
- Cooke, F. Lee and Jill Rubery 2002. *Minimum Wage and Social Equality in China*. Geneva: International Labour Organization.
- Cunningham, Wendy. 2007. *Minimum Wages and Social Policy: Lessons from Developing Countries*. Washington: World Bank.
- Deakin, Simon and Francis Green. 2009. "One Hundred Years of British Minimum Wage Legislation." *British Journal of Industrial Relations*, 47 (2), 205-213.
- Deng, Quheng and Shi Li. 2012. "Low Paid Workers in Urban China." *International Labour Review*, 151 (3), 157-181.
- Ding, Shouhai. 2010. "Employment Effects of Minimum Wage Regulation and Cross Effect of the Employment Contracts Law." *Social Science in China*, 31, 146-167.
- Edwards, Paul, Monder Ram and John Black. 2004. "Why Does Employment Legislation Not Damage Small Firms?" *Journal of Law and Society*, 31 (2), 245-265.
- Eguchi, Kyota. 2010. "Minimum Wages and Trainers' Dilemma." *Labour*, 24 (2), 128-138.
- Grossberg, Adam and Paul Sicilian. 1999. "Minimum Wages, On-The-Job Training, and Wage Growth." *Southern Economic Journal*, 65 (3), 539-556.
- Hashimoto, Masanori. 1982. "Minimum Wage Effects on Training on the Job." *American Economic Review*, 72 (5), 1070-1087.
- Hirsch, Barry, Bruce Kaufman and Tetyana Zelenska. 2015. "Minimum Wage Channels of Adjustment." *Industrial Relations*, 54 (2), 199-239.
- Hyslop, R. Dean, David C. Maré, Steven Stillman and Jason Timmins. 2012. "Heterogeneous Firm Responses to Rising Teenage Wages." *Labour*, 26 (4), 436-454.
- ILO. 2008. *Declaration of Social Justice for a Fair Globalization*. Geneva, Switzerland: International Labour Organization Conference in its Ninety-Seventh Session.

- ILO. 2014. *Minimum Wage Systems*. Geneva, Switzerland: International Labour Organization.
- King, Nigel. 2004. "Using Templates in the Thematic Analysis of Text." In Catherine Cassell and Gillian Symon (eds), *Essential Guide to Qualitative Methods in Organizational Research*. London: SAGE, 256-270.
- Kristensen, Nicolai and Wendy Cunningham. 2006. "Do Minimum Wages in Latin America and the Caribbean Matter? Evidence from 19 Countries." *World Bank Policy Research Working Paper 3870*.
- Laliberté, Pierre (ed). 2012. "Social Justice and Growth: The Role of the Minimum Wage." *International Journal of Labour Research*, 4 (1), 5-127.
- Lam, Katherine, Catrin Ormerod, Felix Ritchie and Prabhat Vaze. 2006. "Do Company Wage Policies Persist in the Face of Minimum Wages?" *Labour Market Trends*, 114 (3), 69-81.
- Lee, Sangheon and Deirdre McCann. 2011. *Regulating for Decent Work: New Directions in Labour Market Regulations*. Houndmills: Palgrave Macmillan and ILO.
- Lemon, Sara. 2007. "A Survey of the Effect of the Minimum Wage in Latin America." *Department of Economics Working Paper No.07/04*, University of Leicester.
- Li, Xisochun and Ping He. 2010. "Effects of the Minimum Wage on the Employment of Rural Migrant Workers—A Case Study of the Yangtze River Delta." *Jiangsu Social Science*, 4, 59-66(in Chinese).
- Lincoln, Yvonna S. and Egon G. Guba. 1985. *Naturalistic Inquiry*. Newbury Park, CA: SAGE.
- Lindebaum, Dirk and Sandra Fielden. 2011. "It's Good to Be Angry': Enacting Anger in Construction Project Management to Achieve Perceived Leader Effectiveness." *Human Relations*, 64 (3), 437-458.
- Low Pay Commission. 2011. *National Minimum Wage*. <https://www.gov.uk/government/publications/national-minimum-wage-low-pay-commission-report-2011>
- Low Pay Commission. 2012. *Non-Compliance with the National Minimum Wage*, Background report prepared by Ipsos Mori https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/226987/Non-compliance_with_the_national_minimum_wage.pdf
- Luo, Xiaolan. 2007a. "Analysis of the Employment Effect of Minimum Wages in China's Monoposony Labor Market." *Finance and Trade Research*, 4, 1-5 (in Chinese).
- Luo Xiaolan. 2007b. "An Analysis of the Minimum Wage's Employment Effect Over the Rural-Workers in China." *Journal of Finance and Economics*, 33, 114-123(in Chinese).
- Maloney, William F. and Jairo Nuñez Mendez. 2003. "Measure the Impact of Minimum Wages: Evidence from Latin America." NBER Working Paper Series Working Paper 9800. *National Bureau of Economic Research*.
- Metcalf, David. 2008. "Why has the British National Minimum Wage had Little Or no Impact on Employment?" *Journal of Industrial Relations*, 50 (3), 489-512.
- Neumark, David and William L. Wascher. 2001. "Minimum Wages and Training Revisited." *Journal of Labor Economics*, 19 (3), 563-595.
- Neumark, David and William L. Wascher. 2008. *Minimum Wages*. Cambridge, MA: MIT Press.
- Poppleton, Sarah, Rob Briner and Tina Kiefer. 2008. "The Roles of Context and Everyday Experience in Understanding Work-non-Work Relationships: A Qualitative Diary Study of White-and Blue-Collar Workers." *Journal of Occupational and Organizational Psychology*, 81 (3), 481-502.

- Ram, Monder, Paul Edwards, Mark Gilman and James Arrowsmith. 2001. "The Dynamics of Informality: Employment Relations in Small Firms and the Effects of Regulatory Change." *Work, Employment and Society*, 15 (4), 845-861.
- Randall, Raymond, Tom Cox, and Amanda Griffiths. 2007. "Participants' Accounts of a Stress Management Intervention." *Human Relation*, 60 (8), 1181-1209.
- Rawski, Thomas. 2006. "Recent Developments in China's Labour Economy", In Katsuji Nakagane and Tomoyuki Kojima(eds.), *Restructuring China*. Tokyo: Toyo Bunko, 18-47.
- Sai, Feng and Yuwei Yin. 1995. "Problems in the Implementation of the Minimum Wage System in China." *Management World*, 3, 204-209 (in Chinese).
- Tian, Songqing. 2009. "A Study on Existing Problems of Establishing and Implementing the Minimum Wage System in China and Countermeasure." *Journal of Beijing Administrative College*, 3, 97-100 (in Chinese).
- Wang, Jing and Morley Gunderson. 2011. "Minimum Wage impacts from a pre-specified Research Design: China 2000-2007." *Contemporary Economic Policy*, 29 (3), 392-406.
- Wang, Jing and Morley Gunderson. 2012. "The Effects of Minimum Wages on Employment and Wages: Evidence from a Natural Experiment in China." *International Journal of Manpower*, 33 (8), 860-876.
- World Bank. 2006. *Minimum Wages in Latin America and the Caribbean: The Impact on Employment, Inequality and Poverty*. Washington, D.C.: Human Development Management Unit, LAC Region.
- Yang, Yingyong and Xiaoyu Zhu. 2012. "Research on the Minimum Wage Development and Its Relative Factors in China." *Gansu Theory Research*, 3, 113-117(in Chinese).
- Zhao, Lixin. 2000. "Re-Employment in Community Services." *Population Journal*, 6, 39-42 (in Chinese).

SUMMARY

Adjustments to Minimum Wages in China: Cost-Neutral Offsets

Based on qualitative interviews of workers, managers and labour inspectors in China, we examine how employers adjust, often in subtle fashions, to minimum wage increases. Our findings highlight the "law of unintended consequences" in that their effects are often "undone" or offset by subtle adjustments such as reductions in fringe benefits and in overtime work and overtime pay premiums that are otherwise valued by employees. Employees often feel that they are no better off in spite of minimum wage increases because of these offsetting adjustments.

This study also suggests possible reasons for the small or zero effect of minimum wage on employment in China. Lack of enforcement may be one of the reasons, but the employees we interviewed seem well aware of the legal minimum wage and employers do not want to get involved in disputes over this matter. For employers who would otherwise be affected by the minimum wage increase, the

cost increase is mitigated by the offsetting adjustments. As a result, minimum wages do not seem to weaken the competitive position of employers in China.

KEYWORDS: minimum wages, enforcement, adjustment mechanisms, fringe benefits, overtime.

RÉSUMÉ

Les ajustements aux salaires minimum en Chine : des hausses à coûts nuls

En s'appuyant sur des entrevues qualitatives menées auprès de travailleurs, de gestionnaires et d'inspecteurs du travail en Chine, nous examinons comment les employeurs s'ajustent, souvent de manières subtiles, aux hausses du salaire minimum. Nos résultats mettent en lumière une « loi aux conséquences inattendues », à savoir que les effets de ces hausses sont souvent « annulés » ou compensés par de subtiles ajustements, tels que des réductions dans les avantages sociaux ou dans le temps supplémentaire, ou encore, dans les primes pour temps supplémentaire, lesquelles sont, par ailleurs, valorisées par les employés. Aussi ces derniers ont souvent le sentiment que leurs conditions ne se sont pas améliorées, en dépit de hausses du salaire minimum, à cause de ces effets d'ajustement.

L'étude pointe également vers certaines explications concernant l'effet réduit ou nul du salaire minimum sur l'emploi en Chine. L'absence d'application peut, sans doute, être une de ces raisons, mais les employés interviewés semblent bien au fait du salaire minimum légal tandis que, de leur côté, les employeurs ne veulent pas se retrouver aux prises avec des conflits sur cette question. Pour les employeurs qui pourraient être affectés par de telles hausses, la hausse des coûts se trouve amoindrie par les effets compensateurs mentionnés. Ceci a pour résultat que le salaire minimum ne semble pas affaiblir la position concurrentielle des employeurs chinois.

MOTS-CLÉS : salaires minimum, application, mécanismes d'ajustement, avantages sociaux, temps supplémentaire.

RESUMEN

Ajustes del salario mínimo en China: compensaciones a costo neutro

Basándose en entrevistas cualitativas de trabajadores, directivos e inspectores de trabajo en China, se examina cómo los empleadores ajustan el aumento del salario mínimo, a veces de maneras sutiles. Nuestros resultados resaltan la "ley de consecuencias no intencionales" y que sus efectos son frecuentemente "no realizados" o compensados por sutiles ajustes tales como las reducciones en el margen de beneficios y en el tiempo suplementario de trabajo y la prima de trabajo suplementario

que constituyen otras formas de ingresos para los empleados. Con frecuencia, los empleados no resienten ninguna mejora a pesar de los aumentos al salario mínimo, y esto debido a esos ajustes compensatorios. Este estudio sugiere también ciertas razones para el poco o nulo efecto del salario mínimo sobre el empleo en China. La falta de aplicación puede ser una de esas razones, pero los empleados que hemos entrevistado parecen conscientes del salario mínimo y los empleadores no quieren estar envueltos en disputas sobre este asunto. Para los empleadores que pueden ser afectados por el aumento del salario mínimo, el aumento del costo es mitigado por los ajustes compensatorios. El resultado es que los salarios mínimos no parecen debilitar la posición competitiva de los empleadores en China.

PALABRAS CLAVES: salarios mínimos, aplicación, mecanismos de ajustes, margen de beneficios, tiempo suplementario.