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Rethinking the Transformation of the Labor Supply
in Rural China During the Reform Era

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Giovanni Arrighi in Beijing: Rethinking the Transformation of the Labor Supply in Rural China during the Reform Era

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Abstract: This article uses a Marxian political economy perspective to analyze the formation of the reserve army of labor in China during the reform era, which began in 1978. Following the methodology in Giovanni Arrighi's seminal 1970 article, we seek to show that the formation of an industrial reserve army is a historical process in which the state played an active role. The Marxian historical method is empirically more relevant than the Lewis model in understanding the surplus labor question in China.

Keywords: Marxian Political Economy, Labor Supply, Reserve Army of Labor, Giovanni Arrighi, the Lewis Model

1. Introduction

China's rapid economic growth over the past two decades would not have been possible without millions of labor migration from rural to urban areas. Migrant workers have supplied cheap and high-quality labor to fuel capitalist production in urban areas. Since the early-1990s, the number of rural-urban migrant workers has increased remarkably, and reached 136 million in 2016 (NBS 2017).

From a Marxian political economy perspective, this article seeks to provide a historical and systematic account of the question: how were rural labor forces transformed into the labor power that supplies urban capitalist production? In Volume I of *Capital*, Marx analyzed in great detail the formation of a labor supply in England, which has tremendous significance to our understanding of capitalist development. In Marx's framework, coercive mechanisms transform non-capitalist labor forces into wage labor through the process of primitive accumulation in which producers are "forcibly torn from their means of subsistence, and hurled, as free and 'unattached' proletarians on the labor market." (Marx 1976: 876) Capitalist development in both rural and urban sectors creates a structuralized reserve army of labor, which is, as Marx contended, composed of three parts: the floating, the latent and the stagnant (Marx 1976: 794). Each part of the reserve army has different sources and functions to capital accumulation.¹

¹ According to Marx, the floating part refers to people who used to have jobs but are now out of work due to the adoption of labor-saving technology. The latent part refers to the agricultural population, once living off of subsistence agriculture, flew to towns looking for jobs in non-agricultural industries. The stagnant part refers to people who were in the active labor army but with "extremely irregular employment".

Capitalist development also transforms the relationship between labor and capital in the production process from formal to real subsumption in which workers have no choice but to produce surplus value and rely on wage employment (Marx 2017).² Agrarian changes, formation of the reserve army, and subsumption relations within production are integral parts of a historical process that creates the labor supply for capitalist production. Marx's theory reminds us that the study of agrarian changes should focus not only on rural societies themselves, but also on the broader political and national contexts in which they are embedded.

The analysis presented in this article confronts the orthodox theory of China's agrarian changes and rural-urban migration that has dominated economic studies and greatly impacted policy making. The orthodox theory originated from a justification of the use of rural labor after decollectivization in the late-1970s and early-1980s, a period that marked the beginning of China's reform era. Applying the Lewis model (Lewis 1954) to China's rural-urban dual economy, the orthodox theory answers the aforementioned question in the following way. First, a massive surplus of rural labor already existed because of the large rural population relative to the limited arable land; therefore, the collective rural economy in the Maoist era disguised, rather than solved, the problem of surplus labor (Wang & Cai 1986; Wang 1999). Second, once the state loosened or removed restrictions imposed on rural economic activities and rural-urban

² In his 1864-65 Economic Manuscript, Marx discussed formal and real subsumption. According to Marx, formal subsumption is a stage in which capitalists compel workers to submit to wage-labor while leaving the labor process unaltered; real subsumption is a stage in which capital transforms the social relations and modes of labor until they thoroughly comply with the nature and requirements of capital.

migration, market incentives stimulated rural labor forces to work for township and village enterprises (TVEs) and later urban enterprises. In other words, the formation of the labor supply was driven by market forces (Du 1999). Therefore, it was the removal of state coercion, rather than coercion per se, that “liberated” labor forces and gave rise to the formation of a labor supply. Third, the Lewis model can be applied to the Chinese economy of the reform era: rural surplus labor feeds the unlimited supply of labor, and the wages of migrant workers are determined by the rural economy until capital accumulation exhausts the surplus labor. The last point also gave rise to the recent debate on China’s Lewis turning point (Cai & Du 2011; Zhang et al. 2011; Knight et al. 2011; Golley & Meng 2011; Chan 2010).

The orthodox theorization in many ways resembles the context in which Giovanni Arrighi wrote his seminal 1970 article, “Labor Supplies in Historical Perspective: A Study of Proletarianization of the African Peasantry in Rhodesia” (Arrighi 1970). In this paper, we wanted to acknowledge that Arrighi’s article has implications for the Chinese economy.³ W. J. Barber (the economist whose work was criticized by Arrighi) assumed that market mechanisms drove the supply of peasant wage labor in Rhodesia. He, therefore, attempted to apply the Lewis model to the Rhodesian economy. Arrighi, on the other hand, argued that the unlimited supply of labor

³ Our title may also remind readers of Arrighi’s *Adam Smith in Beijing*, in which he argued that reform-era China is building a non-capitalist market economy and he looked for historical precedents (Arrighi 2007). In this article, we argue that China in the reform era has created a reserve army of labor from the rural labor force. This conflicts with Arrighi’s understanding; however, it is noteworthy that *Adam Smith in Beijing* also expresses concerns about the social contradictions of economic success (Arrighi 2007: chapter 12). Whether China is going to provide an alternative to capitalism in the future is beyond the scope of this article.

resulted from a process of primitive accumulation. Political mechanisms, claimed Arrighi, transformed peasants' participation in the money economy from "discretionary" to "necessary" and increased the effort-price ratio in the produce market relative to the labor market. Arrighi (1970) also observed that semi-proletarianization was favorable to capital accumulation because it allowed capitalists not to pay migrant workers with wages that are sufficient for the reproduction of labor power.⁴ From the same insight, Arrighi et al. (2010) discussed the constraints imposed by dispossession on the economic development of South Africa. Gurel (2011) also highlighted the downward pressure from semi-proletarianization on wages in Turkey between 1950-1980. This insight is also relevant to us because the majority of peasant families in China are currently semi-proletarian in the sense that they participate in and rely on both family farming and wage labor.

In this article, we argue that the orthodox theory has limited empirical relevance to understanding the transformation of the labor supply in China. We shall demonstrate that the state played an active role in transforming rural labor forces into capitalist wage labor.⁵ The Household Responsibility System (HRS) from the onset of the reform era has guaranteed peasants access to land, thus there has been no massive dispossession of rural land from

⁴ Arrighi et al. (2010) clarified that this idea was actually from Barber.

⁵ It is noteworthy that the active role does not necessarily imply that the state intentionally created the reserve army.

peasants.⁶ However, one cannot deny the existence of coercion and political mechanisms on the basis of no dispossession of rural land; as Brenner (2001) and Wood (2002) argue, market dependence is more important than dispossession in the emergence of capitalism.⁷ In the literature, several studies have identified the role of the state in the making of labor supply. Croll & Huang (1997) document how agricultural production became increasingly unprofitable and out-migration became necessary for meeting the costs of living and maintaining agricultural production, including taxes and local government fees. Solinger (1999) suggests that rural surplus labor resulted from pre-reform rural policies that encouraged population growth and post-reform rural policies that made agricultural production unprofitable. Gao (2007) analyzes changes in the prices of the state's grain procurement and agricultural inputs, showing how the state's policies affected rural income. Yan (2012) focuses on the compulsion of leaving the countryside from a perspective of subject formation for rural young women. She discusses the state's development strategy towards cities in the reform era and its impact on the subjectivity of rural youth. Hung (2017: chapter 3) argues that the state's rural-agricultural policies intentionally or unintentionally bankrupted the countryside, generating a continuous exodus of the rural population in the 1990s.⁸

⁶ Nevertheless, the dispossession of land did take place in recent years as urbanization and real estate market advanced rapidly and the state encouraged agribusiness "going to the countryside" (Andreas & Zhan 2016).

⁷ In the case of China, as we will see, commodification and market dependence as a part of the state's reform forced the Chinese peasantry to participate in wage labor.

⁸ In addition, there have been abundant studies on China's *hukou* system, arguing the state controlled migration, weakened workers' bargaining power, and lowered wages through *hukou* (Solinger 1999;

However, a systematic answer to how a rural labor force was transformed into a capitalist labor supply is still lacking; also, previous literature overlooks the confrontation between a Marxism-based historical interpretation and the Lewis-model interpretation in order to see why the latter has little relevance to the Chinese context. In this article, we first address the labor supply question in a historical and systematic way. We then demonstrate why the Lewis model is empirically irrelevant in understanding the labor supply question in China. We argue that the compulsion of migration for selling labor power was the result of three structural changes in the reform era: decollectivization of the rural economy, marketization of family farming, and the rise and fall of township and village enterprises (TVEs). Each change provided a necessary condition for labor migration as a response to “market” (i.e. subsistence) incentives: the decollectivization of the rural economy destroyed the labor accumulation system that successfully absorbed and utilized surplus labor in the people’s communes; the marketization of family farming made agricultural production increasingly difficult for subsistence. Consequently, peasants had to rely on wage labor. The decline of TVEs further reduced the ability of peasants to find employment in local industries. All three structural changes shaped conditions in rural China for production and reproduction and provide the historical basis for the rural-urban transformation of the labor supply.

Chan & Zhang 1999; Wang 2005). However, *hukou* is not the focus of this article. While those studies on *hukou* focus on how state controlled labor supply by imposing barriers on migration, this study focuses on the historical process that gave rise to the compulsion of labor supply and the state’s role in the process. It is noteworthy that the orthodox theory recognizes the state’s coercion in the *hukou* system, but does not recognize the coercion in the emergence of labor supply.

The rest of the article is organized as follows. In Section 2, we discuss the current situation by introducing semi-proletarianization and the wage gap. In Section 3, we demonstrate the structural changes that created the compulsion of selling labor power in urban areas. Section 4 explains why understanding China's labor supply should not rely on a Lewis model. Section 5 concludes the article.

2. Current Situation: Semi-proletarianization and the Wage Gap

Semi-proletarianized peasant families have become typical among the Chinese peasantry, with the older generation working as cultivators in the countryside and the younger generation working as migrant workers in cities. This has been well-documented in the literature. Huang (2006) summarizes the contemporary peasant economy as “institutionalized ‘half worker, half cultivator (*bangong bannong*)’ involuted agriculture.” Wen & Yang (2016) suggest peasants have been reproducing labor power through an inter-generational division of labor in agricultural and non-agricultural activities. Some scholars suggest the access to land provides peasant families with an “insurance” of livelihoods (He et al. 2010; Wen & Yang 2016) and increases migrant workers' bargaining power (Zhan & Huang 2013); whereas, others are more critical of semi-proletarianization: for instance, Ren & Pun (2008) argue that the state's retreat from the reproduction of labor power has perpetuated the situation of semi-proletarianization.

Semi-proletarianization allows capitalists not to pay a living wage to workers (Arrighi 1970; Arrighi et al. 2010). Migrant workers from peasant families have been paid consistently less than a living wage. We define the living wage as a wage level for a normal working time that is sufficient for the social reproduction of labor power, which can be seen as derived from Marx's concept of the value of labor power (Marx 1976: 275). With this definition, Li et al. (2013) and Li & Qi (2014) estimated a living wage standard and found that workers in the

western, central, and eastern regions only received 60 per cent, 57 per cent, and 54 per cent of their living wage rates in 2009, respectively. The wage gap (gap between actual wages and the living wage) has been favorable to maintaining the profitability of capital accumulation. It has significantly reduced labor costs for the enterprises hiring migrant workers and fuelled China's economic growth. Since migrant workers concentrate in the urban private sector, we take urban private-owned enterprises as an example. We compare the total amount of the wage gap for all the workers in the private-owned enterprise sector with the national GDP. Figure 1 shows the result. According to our estimation, if private-owned enterprises paid wages and overtime payment strictly according to the living wage standard, they would have paid an extra 3.6 trillion yuan for wages in 2015, which was equivalent to 5.2 per cent of China's GDP. As shown in Figure 1, the wage gap as a percentage of GDP rose consistently from 2003 to 2015.⁹

[Figure 1 inserts here.]

This combination of semi-proletarianization and a wage gap means that peasant families must rely on both family farming and wage employment to cover living costs. Peasant families are unable to complete the reproduction of labor power without engaging in family farming, or availing themselves of the low cost of living in rural environments. Nationwide surveys show that 79 per cent of migrant workers are unable to bring their families to cities and live together (NBS 2015), causing negative effects on the left-behind children, elderly, and women (Ye et al.

⁹ The fact that the wage gap as a percentage of GDP was increasing over the period 2008-2015 is compatible with the stable and slightly increasing labor share over this period. The wage gap as a percentage of GDP is determined not only by labor share, but also by a living wage level. Considering costs for urban housing, education, and medical care have risen quickly since 2008, it is not surprising to see that the wage gap is increasing.

2013). Meanwhile, the reliance on wage employment has weakened workers' bargaining power on the shop floor and forced migrant workers to accept low hourly wages; as a result, overtime work has been a chronic issue for migrant workers aiming to earn sufficient wages. The survey of the National Bureau of Statistics reveals that migrant workers on average worked 58.4 hours per week, one-third higher than the 44 hours stipulated by China's Labor Law (NBS 2010). The Chinese General Social Survey showed that the working week in private-owned enterprises, where migrant workers concentrate, varied between 49 to 54 hours over the period 2003-2013.¹⁰ The "involution of labor" (Huang 1985) takes place on the shop floor just as it takes place on the family farm.

It is noteworthy that eliminating semi-proletarianization (or dispossession of rural land) does not automatically eliminate the wage gap, given that semi-proletarianization is a necessary but not sufficient condition for the wage gap to exist. There are many political and economic factors that have suppressed the power of migrant workers vis-à-vis capital and led to the current situation of semi-proletarianization and the wage gap. For example, as technology continues to evolve, workers, particularly low-skilled ones, tend to become redundant or have to accept lower compensation in exchange for keeping their jobs. Neoliberal deregulation of the labor market has created further downward pressure on wages and working conditions. The growing informalization of employment has also weakened workers' bargaining power vis-à-vis employers. In the Chinese context, among these factors, a Marxian interpretation of the formation and change of the reserve army is also relevant. To understand the current situation,

¹⁰ Sources: Chinese General Social Survey.

we address a fundamental question in the next section: why selling labor power became necessary for peasant families.

3. Compulsion of Selling Labor Power to Urban Capital

In this section, we discuss the historical process that gave rise to the compulsion of selling labor power to the urban capitalist sector. From the late 1970s to the late 1990s, the state launched rural decollectivization that destroyed the institutional basis of labor accumulation, promoted marketization that ended up squeezing income for family farming, and shifted resources away from TVEs for the development of urban enterprises; as a result of the state's intentional or unintentional actions, the Chinese peasantry lost alternatives to selling labor power in cities.

3.1 Decollectivization and the emergence of rural surplus labor

Before going further, the meaning of surplus labor should be scrutinized, since whether reducing labor inputs affects agricultural production depends upon the specific mode of organization and the way that labor is withdrawn from agriculture (Sen 1967). Rural surplus labor existed across China as far back as the 1920s (Buck 1937). This means that within the small peasant economy, the labor force was not fully utilized, especially during the winter months. From 1958 to 1983, the people's commune system attempted to mobilize idle labor by increasing labor intensity in agricultural production, undertaking labor accumulation, and developing commune and brigade enterprises – the predecessors of township and village enterprises (Nickum 1978; Rawski 1979; Huang 1990; Selden, 1979).

The labor accumulation system was an effective way to mobilize rural surplus labor in constructing rural infrastructure and improving production conditions. Initiated during the Great Leap Forward (1958-1961), labor accumulation in the next two decades contributed to the rapid

growth of agricultural production by significantly improving irrigation infrastructure. The development of irrigation allowed the introduction of fertilizer-responsive plant varieties (Perkins 1977), which was crucial for agricultural production not only under the collectives but also under the HRS. Through labor accumulation, peasants contributed to the accumulation of collective assets that would favor long-run rural development. A case study of Xuhuai Prefecture in Jiangsu Province revealed the cumulative value of labor accumulation formed about 55 per cent of the total water conservation outlay for the period of 1949-1980 (Wakashiro 1990). Labor accumulation rewarded peasants with work points which were subsequently converted to income for workers' teams; in some cases, peasants did not receive work points but were obliged to participate in labor accumulation (Nickum 1978)¹¹. According to Du (2002: 732), in each year during the Cultural Revolution, about six to seven billion working days were organized for labor accumulation. Dividing this number with the average size of rural labor forces during the Cultural Revolution period, one can see that every laborer annually expended about 30 working days on labor accumulation, which is close to Nickum's estimate (1978). In another estimate by Patnaik & Natrajan (2000), the winter works programs employed 50 days per worker in the pre-reform era. From 1957 to 1975, China's agricultural system succeeded in raising the annual workdays per worker in agriculture from 119 to 250, while absorbing an estimated 97.3 million workers (Rawski 1979; Rawski 1982).

¹¹ Nevertheless, Saith (1995) argues that the labor accumulation should not be conceptualized as utilizing unpaid labor. In theory, projects achieved by labor accumulation increased the income of the work unit in the following years, leading to a rise in the value of the work point and consequently of the incomes of the unit members. Peasants were, in fact, compensated for their work in the service of labor accumulation in the form of a deferred payment.

The decollectivization reform not only rebuilt the small peasant economy, but also dismantled labor accumulation. Under the HRS, peasant households made decisions on labor utilization and intra-family distribution. The collective became an empty shell unable to carry out labor accumulation. Despite the official interpretation of decollectivization as a spontaneous and apolitical process, the reality is that the state enforced decollectivization with a heavy hand, which, we argue, dismantled the institutional basis for labor accumulation and gave rise to the re-emergence of rural surplus labor. Studies have questioned the rural reform as a bottom-up process and underscored the coercion from above. Zweig (1983) found that the rural reform received significant opposition from high cadres, local cadres, peasants, and intellectuals because of its potential adverse effects on equality, mechanization, water conservation projects, income from collective factories, and so on. Hartford's fieldwork (1985) and Xu's recent studies (2013) suggested the similar conclusion. Hinton (1990) documented that some villages resisted the HRS for years until high officials sent an ultimatum to local cadres. It is true that the rural reform received support from some peasants, especially those from poorer areas; however, the way that the state established the HRS on a national scale was undoubtedly through coercion (Kelliher 1992).¹² For instance, Xu Jiadun, the first party secretary of Jiangsu Province, after being criticized by either Premier Zhao Ziyang or General Secretary Hu Yaobang, two well-known reformists, had to openly criticize himself for previously opposing the HRS (Zweig 1983: 890). In another case, Hu Yaobang denounced the cadres of Hebei Province for delaying the rural

¹² Kelliher (1992: 105) suggests that the majority of peasants supported family farming; however, he also argues that “family farming was implemented with the government’s habitual insensitivity to local concerns” and not all peasant communities wanted family farming.

reform; provincial-level and county-level cadres were replaced for opposing the HRS (Du 2005: 131). State coercion was also evident in relentlessly wiping out the alternatives to the HRS. Despite only about one-third of collectives performing badly under the commune system (Du 2005; Hinton 1990), almost all collectives were dismantled and replaced by the HRS. The initial years of the rural reform witnessed various forms of combination between the collective system and individual incentives, the majority of which needed collectives in organizing production. But by the end of 1983, 97.8 per cent of production teams took the *baogan daohu* (“full responsibility to household”) system, in which the collective had little function (Du 2002: 60), thus it almost became the only form. Du (2002: 61) explained that some local cadres “mistakenly” treated *baogan daohu* as the one form advocated by the state. However, if the implementation of *baogan daohu* were only a mistake rather than a consequence of state coercion and cadres’ responses to the political wind of decollectivization from above, it could have been remedied easily and replaced by a diversity of institutions.

As a result of decollectivization and the abolishment of labor accumulation, rural surplus labor re-emerged. Given that labor accumulation needed to be complemented by the specific institutions governing production and distribution under the people’s communes, labor accumulation turned to be infeasible after decollectivization. Hiring labor became inevitable for building rural infrastructure except for some villages where collective institutions were partially kept as legacies (Pan 2002). Decollectivization delinked peasants with the collective assets that were created through labor accumulation, transforming collective assets into public goods that inevitably suffered from the tragedy of commons. The abuse of these public goods became common; infrastructure was hard to maintain. During the process of decollectivization from 1979 to 1983, the national mechanized area dropped by 20 per cent (NBS 2009). While the total area

of irrigated land had achieved an annual growth rate of 1.6 per cent over the period 1958-1978 (NBS 2009), this growth ceased during decollectivization. In 1986, the Communist Party called for “establishing a necessary labor accumulation system,”(Central Committee of CPC 1986) suggesting that the state realized the importance of labor accumulation for rural infrastructure. In Jiangsu Province, the amount of earthwork was 40 per cent lower from 1981-1985 than it was from 1976-1980 (Chen 1987). Meanwhile, in the early 1980s, the rising income available from non-farming and non-agricultural activities raised the opportunity cost to hire peasants for building rural infrastructure. The Lewis turning point ironically emerged as the result of decollectivization even before an unlimited supply of labor became available to the urban sector.

Chinese scholars did not intensively discuss the issue of rural surplus labor until the late-1980s when the agricultural income of peasant households failed to maintain its rapid growth and the fast development of TVEs was interrupted by the state’s contractionary policy after the failure of price reform. In the late-1980s, the number of outgoing migrant workers increased significantly, starting to impose pressures on the transportation system and make the state concerned about social stability (Zhao 1999). The orthodox theory of China’s rural-urban migration emerged from the exploration of the sources of rural surplus labor. It underscores the absolute size of the rural population and suggests that the heavy-industry-biased developmental strategy of the Maoist era had constrained the urban sector’s capacity to absorb rural surplus labor (Du 1999). More importantly, the orthodox theory argues that the management of production under the people’s communes had “disguised” the problem of surplus labor (Wang & Cai 1986; Wang 1999). In official documents and among Chinese scholars, the labor system was labelled “*Dahulong*,” which means everyone appeared to be working hard but actually expended little effort. That is to say, peasants were less incentivized and thus their labor productivity

remained dormant in the Maoist period. It is claimed that peasants then become more willing to expend effort under the HRS, making some labor forces redundant once each peasant expended more effort than before. Nevertheless, this notion peasants had been shirking their responsibilities is not supported by evidence. In fact, a recent study based on interviews with former production team members suggests that shirking was not a widespread phenomenon; factors including income distribution, state extraction, and indigenous social networks all had an impact on labor effort (Li 2016). The collective provision of free education, medical care, housing and cultural facilities, financed mainly by local collective income, created a collective incentive to work diligently, both for the good of the group and for personal gain (Riskin 1975). At the same time, peasants were also subject to formal and informal constraints (Li 2005). Xu's case study (2015) in Songzi reveals that even in those cases when work avoidance did happen, the reason was usually due to stratification, rather than to egalitarianism. The collective regime was able to increase total labor effort by enhancing labor participation, which is why China could achieve a significant growth in grain production and land productivity (Liu 1994).

3.2 Marketization of family farming

After decollectivization, peasant families began to rely on the market to sell surplus products and purchase means of production; family farming thus underwent the process of marketization. However, the state procured and purchased a large proportion of grain from peasant families in forms of quota procurement and purchase at negotiated prices; meanwhile, producers of chemical fertilizers and pesticide were mostly state-owned enterprises. Therefore, the state had a significant impact on rural income by setting procurement prices and liberating the prices of critical non-labor inputs. Consequently, peasant families were vulnerable to either market fluctuations or state policies. Production growth, rather than enriching peasants, tended to

intensify competition among peasants, leading to a lower market price and eventually impoverishing peasants. While high procurement prices and low input prices could help peasants largely avoid the adverse effects of competition, the possibility of this combination depended on many crucial factors, such as the state's fiscal ability of subsidizing agriculture, the responses of urban consumers to higher food costs, and the need for liberating prices in the chemical fertilizer and pesticide industries.

After the rapid growth of rural household income from agriculture in the initial years of the reform era, the growth slowed and became unstable from 1985-2003, as shown by Figure 2. During the period from 1985-1990, agricultural incomes remained virtually stagnant in per capita terms with annual growth of merely 1.2 per cent; three years out of the period from 1985-1990 even witnessed negative growth.¹³ The rate of growth of real consumer expenditure per capita also steadily declined from 1978 to 1990. After 1983-1984 when the commune system was dismantled, a substantial part of the increase in consumption was financed through a drop in the level of savings of peasant households (Saith 1995). Figure 2 also presents the rural-urban income ratio, showing the growth in rural income relative to urban income. Although income grew faster in rural than in urban initially, the rural-urban income ratio experienced a downturn between 1984 and 1992, with the income gap even wider in 1992 than in 1978.

[Figure 2 inserts here.]

Due to factors such as the pro-peasants procurement prices, the increase in the inputs of chemical fertilizers, and the irrigation infrastructure built under the collective system (Hinton

¹³ Sources: various issues of *China Statistical Yearbook*.

1990), grain production achieved a dramatic growth and rural income also increased remarkably in the initial years. However, given that the state was heavily subsidizing grain prices, the rapid growth in rural income was unsustainable. Fiscal expenditure on price subsidies to grain, cotton, and edible oil rapidly increased from less than 1 per cent of the state's total fiscal expenditure in 1978 to 12 per cent in 1984, equivalent to 44 per cent of the state's infrastructure investments; however, after 1984, the relative size of the price subsidies consistently fell.¹⁴ In 1993, Premier Zhu Rongji admitted in a conference that “grain production has been unprofitable, and peasants have been reluctant to cultivate grains.” “Last year we paid too much attention to development zones and real estate but overlooked agriculture. After we liberated grain prices and cancelled subsidies on grain prices, the saved money has not been used to promote agricultural development.”(Zhu 2011a: 393-394) The transient high procurement price served to accelerate rural reforms but failed to rebalance the rural-urban structure.

Even without fiscal subsidies, the market alone sometimes produces high prices. The rise in grain prices tended to cause inflation, especially when the state did not firmly control the amount of total wages and credit. In late 1993, a rapid growth of grain prices led to inflation. In response, the state intervened in the market by selling grain in reserves in the market and became cautious in setting procurement prices and liberating the grain market. In a November 1993 speech, Premier Zhu Rongji explained how “grain prices should be determined in the market”; “first, the fixed quota of 100 billion *jin*¹⁵ should be sold to the state at the fixed-quota price;

¹⁴ Sources: *China Fiscal Yearbook* 1999.

¹⁵ 1 *jin* = 0.5 kilogram.

second, the 80 billion *jīn* negotiation-price grain should be sold at market prices; finally, the state grain system should stabilize market prices at the fixed-quota price by increasing or reducing grain in reserves.”(Zhu 2011: 496) This indicates that market prices were, in fact, largely controlled by the state. The stabilization of grain prices became a more important goal for the state than the interests of peasants.

Prices of chemical fertilizers and pesticide were crucial to peasant’s income. The increase in these inputs significantly contributed to labor productivity in family farming. The state had a considerable impact on these prices through its control over the pace of marketization in relevant industries. Gao (2007) documents that the prices of chemical fertilizers and pesticide were 43 per cent and 82.8 per cent, respectively, higher in 1985 than the prices in 1983, while grain procurement prices declined. Croll & Huang (1997) found in their interviews that input prices were governed by market while procurement prices were set by the state and had not been adjusted to cover the rising costs of inputs.

In addition to the marketization of agricultural production, peasant families also underwent the commodification in means of consumption. They had to pay for education and medical services previously supplied by collectives for free (Gao 2007). Meanwhile, local governments imposed heavy burden of fees on peasant families. As Zhu Rongji criticized, “Once you cancel 200 types of fees, local government will create 300 more.”(Zhu 2011b: 465) All of these imply peasant families needed more cash income beyond the reach of family farming.

The orthodox theory explains the stagnant rural income by the large population relative to limited arable land. In fact, the stagnant income resulted more from the state’s shift in developmental strategy that favored urban areas and marketization. Thanks to the state-supported increase in the procurement prices of the initial years, peasants were incentivized to allocate

more labor input to agricultural production under the HRS. However, the incentives for farming declined once the prices of agricultural products stagnated while taxes and fees increased along with the price of non-labor inputs. Peasants found it increasingly difficult to support themselves by agricultural income alone, and had to resort to wage employment for higher income; however, in many places, before entering the urban sector, they were absorbed by the rising TVE sector.

3.3 The rise and fall of township and village enterprises

Township and village enterprises (TVEs) achieved rapid growth in the 1980s but the growth significantly slowed in the 1990s. The growth of TVEs was rapid in the 1980s but slowed down significantly in the 1990s. TVEs played an important role in absorbing rural surplus labor locally and filled the vacancy from the demise of labor accumulation in communes. The predecessors of TVEs (commune and brigade enterprises) had been established to promote rural industrialization and better use of rural surplus labor. In the 1980s, TVEs used China's surplus labor to develop the industrial sector at a rate fast enough to ensure full employment and meet the rising demand from manufacturing (Bramall 2009). As a legacy of the Maoist era, the fast-growing TVE sector even surprised the state; Deng Xiaoping once described TVEs' development as "a strange army from nowhere." In the literature, although the nature of TVEs in this period remains debatable,¹⁶ studies have shown that TVEs pursued multiple objectives. From a survey on 200 TVEs (dominated by collective-owned enterprises) from 10 provinces in 1984-1990, Dong (1998) found that TVEs pursued non-profit objectives including raising employment levels as well as

¹⁶ Zhou (1996) argues that TVEs were private enterprises camouflaged as collective enterprises; Huang (2008) underscores the entrepreneurship of TVEs.

workers' income. Bramall (2006) argues that TVEs, thanks to the local employment focus, actually encouraged local governments to invest in skill development and helped the development of infant industries by avoiding 'brain drain' especially in poor areas. Due to the absence of a national labor market, TVEs effectively postponed the transformation of the latent reserve army into the floating one.

TVEs had a mixed structure of ownership, ranging from collective-owned, private-owned enterprises to the self-employed; however, private-owned TVEs were rather small, with an average employment of less than nine persons in the 1980s.¹⁷ Compared to SOEs, TVEs were more flexible in labor enrolment and wage distribution: bonuses and piece-rate wages were widely used in providing incentives; contractual and temporary workers were the majority; only key skilled workers were long-term workers (Ministry of Labor and Personnel 1989). Thus TVEs were more cost competitive than state-owned enterprises. TVEs also benefitted from favorable institutional supports such as low taxes and government-guaranteed access to cheap credit (Naughton 2007). TVEs of the Sunan mode, one of the famous models of TVE in southern Jiangsu Province, strengthened the collectives and even reversed the decollectivization process in agriculture (China TVE Yearbook 1978-1987; Pan 2002). After decollectivization, TVEs became the main resource and institutional structure that underpinned the nominally existing rural collectives; in those places with failed or absent development of TVEs, rural collectives became empty shells, and workers quickly began to migrate to other areas as a result.

¹⁷ Sources: *Agriculture in China in the Past 60 Years*.

Wages in TVEs grew significantly faster than both the net income of rural households and the agricultural income of rural households in 1984-1988.¹⁸ The average wage in collective TVEs grew even faster, at an annual rate of 13.1 per cent.¹⁹ TVEs were significant not only in job creation, but also in the community-based way that they created jobs locally and increased income for local peasants. In this sense, the development of TVEs provided peasants with an alternative to selling labor power. Nevertheless, TVEs' capacity of absorbing surplus labor was limited by its uneven development across the country. Collective TVEs were highly developed in rural areas close to large cities. The top 10 provinces ranked by the proportion of collective TVE employment in total rural employment comprised three-fourths of the collective TVE employment in 1988.²⁰

The literature has provided various explanations for the decline of TVEs, emphasizing the role of the state. Wen & Yang (2016) underscored the role of financial contraction as the state's response to the failure of radical price reform in 1988. Huang (2008) argued that the 1990s witnessed a shift of the state's policies from supporting private enterprises to supporting SOEs. Pan (2002) suggests that it was the neo-classical ideology that pushed the state to privatize TVEs in the late 1990s. Andreas (2010) highlighted the wholesale privatization of TVEs and the sudden sharp drop in grain prices in 1996 as two critical changes leading to the decline of TVEs.

¹⁸ The real wage in TVEs grew at an annual rate of 4.3 per cent, compared to 1.9 per cent for the net income per capita and 0.1 per cent for the agricultural income per capita (Sources: *China Township and Village Enterprise Yearbook*).

¹⁹ Sources: *Agriculture in China in the Past 60 Years*.

²⁰ Sources: various issues of *China Rural Statistical Yearbook*.

The short-lived boom of TVEs in the 1980s can also be explained by the state's pursuit of marketization, a critical factor affecting both the rise and fall of TVEs. In 1984, China launched the dual-track system of reform: SOEs were allowed to sell products in the market at the market price as long as they achieved the production goals stipulated by the planning system. Not restricted by the planning system, TVEs could benefit from the excessive demand relative to insufficient supply in the initial stage of marketization. Given that a large proportion of TVEs were producing consumer goods, the relatively equal income distribution and the rising wages of urban workers as well as the rising incomes of rural households created favorable market conditions for TVEs. The pursuit of marketization was a double-edged sword to TVEs: on the one hand, the rapid development in TVEs greatly benefited from the dual-track system in the initial stage of marketization; on the other hand, with the end of the dual-track system following the economic contraction from 1989-1991, TVEs had to face fiercer market competition from urban private enterprises and SOEs. Meanwhile, the state prioritized urban development with more resources and preferable policies towards coastal cities and towns to attract and serve global capital. Premier Zhu Rongji openly advocated restraining TVE growth to free up resources for the expansion of the export sector (as cited in Hung, 2017). In consequence, TVEs oriented to pursuing profits from absorbing surplus labor after the early-1990s, which can be illustrated by the share of profits in the net value added. Figure 3 shows for both collective-owned TVEs and all TVEs, the share of profits in the net value added decreased from 1978 to 1990, and started to rise after. TVEs' ability to create employment significantly dropped after 1988. The decline of collective TVEs eliminated a non-capitalist approach to absorbing surplus labor locally and forced rural-urban migration for employment.

[Figure 3 inserts here.]

4. Empirical Irrelevance of the Lewis Model

China's enduring imbalance of a massive rural population and limited arable land does share some similarities with the surplus labor presented in the Lewis model; likewise, the transition from a planned economy to a capitalism-dominated market economy also resembles the decrease in the non-capitalist sector and the increase in the capitalist sector in the dynamics of the Lewis model. However, we argue that the Lewis model has little empirical relevance for China, based on two reasons.

First, as we have argued above, the compulsion of Chinese peasantry to selling labor power is largely a result of state coercion, which dismantled the collective system on a national scale. State policy also squeezed the income of family farming and lessened the effectiveness of collective TVEs. During this process, masses of rural producers were deprived of the historical alternatives to migration (i.e. labor accumulation, subsistence farming and local industrial employment), and then disciplined by the alliance of state and capital to accept their precarious social conditions in cities. This is, however, quite opposite to the crucial assumption in the Lewis model that the voluntary and harmonious rural-urban movement of wage labor was exclusively in response to market incentives. Therefore, the historical formation of the industrial reserve army in China differs from the basic setting of the Lewis model.

Second, the Lewis model also fails to account for how wages and job security in urban China are driven by political institutions, rather than by market mechanisms and technology. In China, as the private sector has become dominant in urban employment, many individuals, particularly rural migrants, have resorted to accepting work that is both informal and precarious. The younger generation (sixteen to twenty-six years of age) of migrant workers is disproportionately more prone to informality, with 72.9 per cent of them neither covered by a

written labor contract nor provided with any type of social insurance (Park et al. 2012). The chronic problem of overtime work already illustrates how the labor law has not been strictly enforced for migrant workers. Surveys by the National Bureau of Statistics reveals that only 35.1 per cent of migrant workers signed a labor contract in 2016 and only 16.7 per cent of migrant workers participated in pension insurance in 2014; in the construction sector where workers are vulnerable to workplace injuries, only 14.9 per cent of migrant workers have participated in injury insurance (NBS 2017; NBS 2015). In most cases, a labor company subcontracts a project to a labor contracting team, and the team recruits construction workers through informal relations; however, workers have no contract with the labor company, the actual employer (Pun et al. 2010). Temporary workers in the form of dispatched workers have been common in the manufacturing sector.

The informal and precarious nature of employment, salient in the Chinese economy but absent in the Lewis model, is a result of decades of state policy-making. First of all, as many scholars point out, the *hukou* system controls geographical migration. Even in the years following the *hukou* reform, policies continue to limit the welfare benefits of rural migrants increasing their dependence on low-pay, low-security jobs, and serve the interest of capital in search of cheap and disposable workers as well as multiple interests of the state such as reducing urban unemployment and maintaining social stability. The *hukou* system, while providing equal land-use rights for rural residents as a cushion and thereby contributing to social stability, ensures employers to pay less than a living wage as long as they provide workers with the minimal living necessities, such as dormitories, in cities. It increasingly signals a tacit coalition between the state and capital (Chan & Zhang 1999; Pun & Chan 2013).

Second, in order to pursue economic growth and accelerate China's integration into the global production chain, local governments, in particular, have appealed to the interests of global capital by lowering labor standards and tolerating noncompliance with labor regulations. Beginning in the late-1990s, the privatization of the state-owned sector led to the layoff of over 30 million workers within a few years, which significantly suppressed the power of urban workers. Faced with a private capital-dominated economy, the state aligned its economic and employment growth with private capital's profitability. Through SOE reform and privatization, the state, to a large extent, evaded its responsibility in assisting the reproduction of labor power, and left workers in a much weaker position in the production process. In prioritizing economic growth, the state kept silent on circumventing labor laws, leaving scattered migrant workers to bargain with private capital, and turned a blind eye to Marx's "hidden abode of production."

5. Conclusion

In this article, we have analyzed the historical trajectory of a rural labor force being transformed into a capitalist labor supply. We have come to the conclusion with two key points. First, we argue that a series of structural changes -- dismantling labor accumulation by decollectivization, commodification and increasing market dependence of family farming, as well as lessening the effectiveness of TVEs -- gradually forced the migration of Chinese peasants from the rural to urban areas. The consequence is the formation of a large reserve army of labor which has imposed remarkable downward pressure on wages, leading to the persistent gap between actual wages and a living wage level. Second, when examining how this new labor supply was formed, we should not view the state as a passive actor retreating from its former sphere. It is true that the state has not simply been a servant of capitalist interests; nevertheless, state policies eliminated other alternative development paths for the Chinese peasantry, which led to the creation of a

capitalist reserve army of labor. The various coercive mechanisms employed by the state were crucial in ensuring that the labor supply would concentrate in the right place (cities), at right time (post-1992), and with right price (lower than a living wage). The state even perniciously colluded with capital, by actively assisting capital to recruit cheap and disposable labor. As a consequence, the rise in precarious work has further weakened workers' position both in the labor market and in the labor process.

The historical circumstances of China's economic reform highlight the empirical relevance of Marx's historical method and theoretical framework. It does not lie in providing any ready-made conclusion or making any deterministic predication, but rather in offering a method of historical analysis which is based on real contradictions and conflicts in the society, rather than sticking to a theoretical model with assumptions of little historical relevance. Giovanni Arrighi's analysis of the Rhodesian economy provides a classic example. No matter how coherent the Lewis model is by itself, it should not be blindly applied to the Chinese context. Under the Lewis model, crucial historical and political features are too easily overlooked; therefore, their relevance goes unexplained. In the question of surplus labor supply, the Marxian methods deserve more academic and political attention than it has received thus far.

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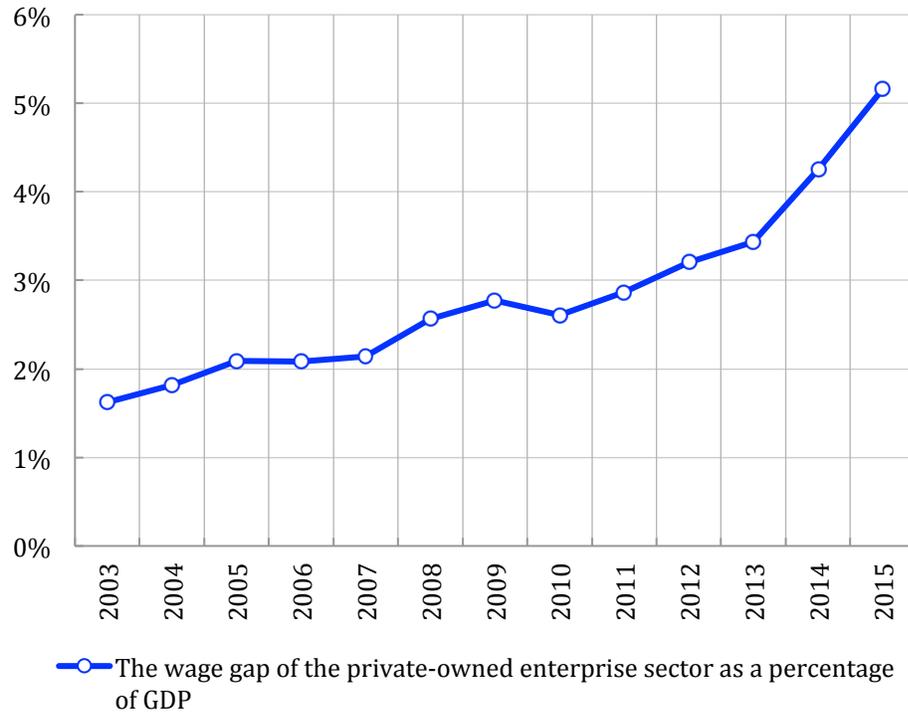
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Figures

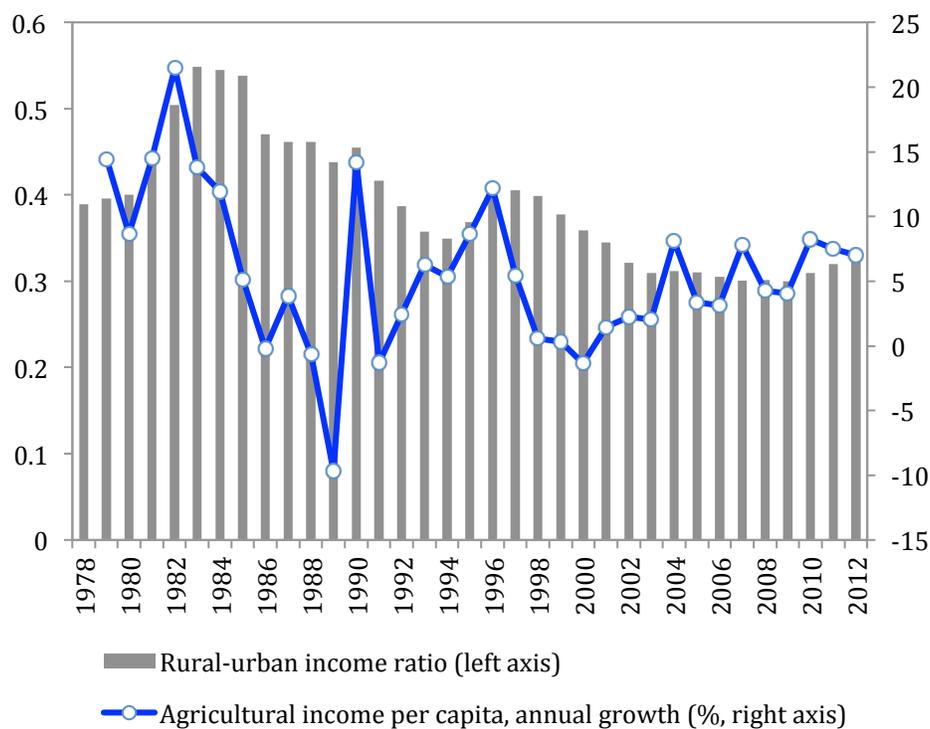
Figure 1 The Wage Gap of the Private-owned Enterprise Sector as a Percentage of GDP, 2003-2015



Notes: This figure measures the total size of the gap between actual wages and a living wage for all workers in the private-owned enterprise sector. The average disposable income of the bottom 20 to 10 per cent of urban households, adjusted by the dependency ratio, is chosen as the living wage standard. We follow the methods used by Li et al. (2013) and adopt the same assumptions to estimate the wage gap in different regions and calculate the national sum from the regional numbers.

Data sources: various issues of *China Statistical Yearbook* and NBS (2010).

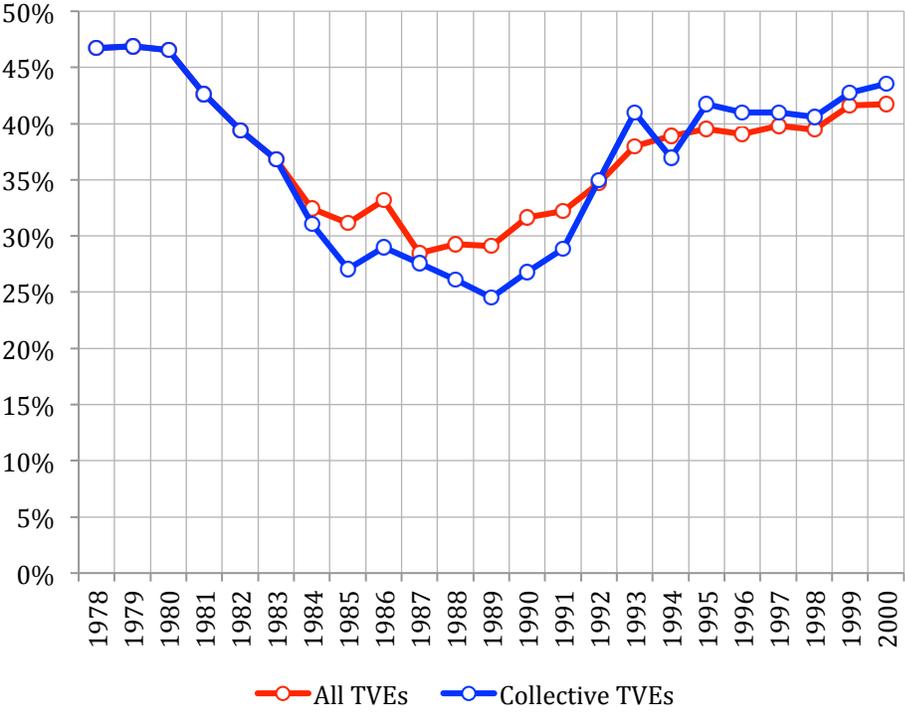
Figure 2 Rural Income Growth, 1978-2012



Notes: The rural-urban income ratio is defined as the ratio of rural household net income per capita to urban household disposable income per capita. We adjust the family farming income by rural consumption price index.

Data sources: various issues of *China Statistical Yearbook*.

Figure 3 TVEs: Profit Share in Net Value Added



Notes: The profit share is the ratio of profits to the sum of employees’ compensation, taxes, and profits.

Data sources: various issues of *China Township and Village Enterprise Yearbook*.