Institutional Barriers to Labour Migration: Does China's Economic Development Vindicate the Lewis Model?

Camilla Munkedal

Abstract

The Lewis Model is a seminal framework in development economics due to its analysis of the importance of migration for economic growth. This paper builds on the scholarship that has analysed the Lewis Model in relation to the Chinese development experience and focuses in particular on the institutional barriers to migration in the form of China's hukou system. It is shown that the Chinese development experience of increasing wages in the face of persisting rural labour surplus does not adhere to the Lewis Model. Moreover, it is argued that wage and social discrimination in China's urban labour market serve as significant barriers for rural-urban migration. This paper concludes that the Lewis Model provides a useful but inadequate framework for understanding China's internal migration challenges, and that more research should focus on the welfare implications of migration patterns in China.

Keywords: Development economics, China, Chinese development, Lewis Model, Migration

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In 1954, as Dr. Arthur Lewis was finishing off what was to become a seminal paper in development economics, a huge wave of migration swept over China's cities, with 20 million people migrating to the cities in the period 1949-1956 (Cheng & Selden, 1994: 653). Policies to control the flow of migrants proved inefficient and bemoaning the number of urban dwellers who were to be provided free housing, health care, and food subsidies, the government implemented the hukou system in 1955. By requiring all migrants to obtain a migration certificate to gain eligibility for employment, shelter, and social services in their destination, this system effectively bound rural citizens to their villages for most of the Maoist period (Cheng & Selden, 1994).

The easing of the hukou system in 1984, in granting migrants temporary resident permits in cities while keeping the institutional barriers in place by barring access to social services, unleashed another wave of migration, with 60 million migrants coming to Chinese cities in the following 10 years (Melander & Pelikanova, 2013: 2). This level of migration has continued, growing by an estimated 14% annually from 1995 to 2006 (Knight et al., 2011: 6-7). Do such high figures vindicate the Lewis Model in a Chinese context? The answer to this question may have implications for how development paths are understood more generally, particularly in the Global South, where the economic dualism of the Lewis Model is still seen as a powerful explanatory factor in cross-country inequality (Ranis, 2004: 719).

In this paper, it is argued that in order to evaluate the Lewis Model's application to China, particular attention should be given to the institutional barriers to migration in China. The paper first provides a detailed account of the original closed economy Lewis Model as well as the 1961

Ranis-Fei interpretation and its application. The extent to which China's economic development fits into the Ranis-Fei interpretation of the Lewis Model phases is then discussed, providing the argument that urban labour market segmentation and the hukou system serve as strong barriers for migration.

The Lewis Model

Lewis' 1954 paper

In his 1954 paper *Economic Development with Unlimited Supplies of Labour*, Lewis sets out a dualistic model of a capitalist sector, generally understood as the industrial sector, and a subsistence sector, generally understood as the agricultural sector. The model is based on the assumption of an unlimited supply of labour in the subsistence sector, which manifests itself in a marginal product of labour that equals zero ($MPL^A = 0$). As the wage naturally cannot be zero, it is set above the MPL^A at the point where the average product of labour provides sufficiently for the farmer and their dependents (Lewis, 1954: 409). In contrast, wages in the capitalist sector (W^I) are set at a premium over those in the subsistence sector (W^A), generally around 30% more (ibid: 410). As a result of this premium, workers in the subsistence sector will migrate to urban areas to seek work in the capitalist sector. Lewis then reasons that if there is a constant urban real wage and a share of profits is reinvested in capital, profits will grow, thus increasing the demand for labour (ibid: 418). This process will continue until there is no longer surplus labour in the subsistence sector or real wages in this sector become so high that there is less of an incentive to migrate (ibid: 1931). This has become known as the Lewis Turning Point (LTP).

Ranis-Fei Interpretation

Arguing that Lewis "failed to present a satisfactory analysis of the subsistence or agricultural sector," Gustav Ranis and John Fei (1961: 534) presented an interpretation of Lewis' paper that focused mainly on the economic effect of rural-urban migration on the subsistence sector. Their addition of different phases is displayed in Figure 1. As illustrated, the first phase of the Ranis-Fei interpretation of the Lewis Model is that in which the subsistence sector features $MPL^A = 0$. In this phase, both subsistence and capitalist wages are constant. As labour starts migrating from the subsistence to the capitalist sector, the unlimited supply of labour in the former comes to an end, and MPL^A will start increasing, marking the beginning of phase 2, denoted by Ranis and Fei as the 'shortage point' (ibid: 540). When $MPL^A > 0$ less workers will migrate to the cities. This leads to an increase in W^I, thus maintaining the incentive for rural-urban migration. This process continues until the rising MPL^A causes a rise in the W^A marking the beginning of phase 3, which is denoted by Ranis and Fei and the 'commercialization point'; as it marks the advent of "a fully commercialized agricultural sector" (ibid: 537).

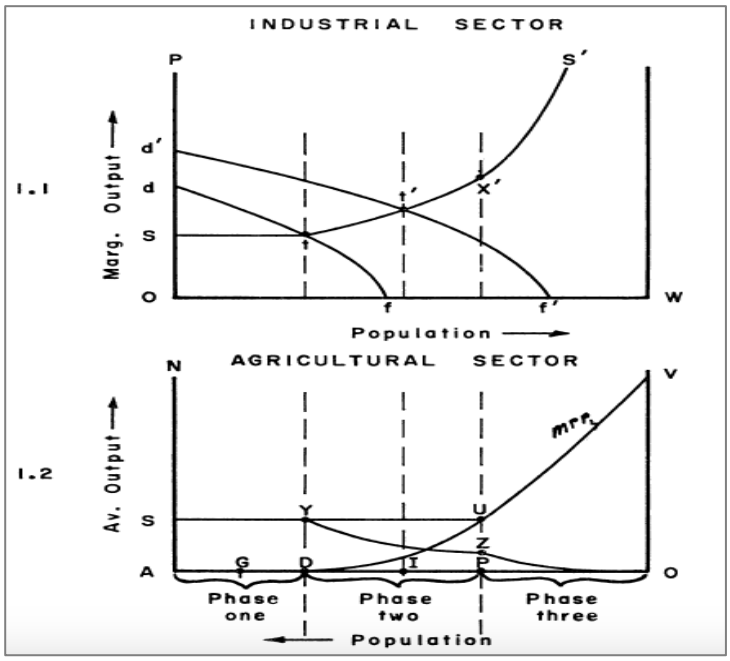

Figure 1: The Ranis-Fei interpretation of the Lewis Model (Ranis and Fei, 1961: 535)

The Lewis turning point

Much debate has been centred around whether or not China has reached the Lewis Turning Point (Islam & Yokota, 2008; Cai, 2010; and, Knight, 2011). In this context, it is important to point out that different definitions are used for the Lewis Turning Point (LTP). In their paper, Ranis & Fei (1961: 240) state that the LTP coincides with the 'shortage point', that is, the point at which a rise in MPL^A causes an increase in W^I, signalling the end of surplus labour in the subsistence sector. In contrast, Nazrul Islam & Kazuhiko Yokota (2008: 360-61) define the LTP using Ryoshin Minami's criterion-I, which states that the LTP occurs when $MPL^A = W^A$, that is, at the 'commercialization point'. Cai Fang (2010: 114) describes China's state of economic development state as indicating on the one hand, labour shortage, and on the other hand, an increase in the wages of migrant workers. Fang asserts these as the defining characteristics of the LTP. This statement is clearly contradictory; while the former characteristic refers to the 'shortage point', the latter refers to the 'commercialization point' where W^A start increasing. From these few examples, it becomes evident that given the discrepancy in definitions of the LTP, the debate on whether or not China has reached the LTP is not well-informed. Hence, this paper will not seek to evaluate whether or not China has reached the LTP, but rather the extent to which the Lewis Model phases, as set out in the Ranis-Fei interpretation, correspond to the economic development of China in recent decades. This implies an analysis of urban, rural, and migrant wages, as well as the extent to which China is experiencing a labour shortage.

Applying the Lewis Model to China

Rising urban wages with rural labour surplus

The Ranis-Fei interpretation is widely accepted as an extension of the original Lewis Model, and Gary Fields & Yang Song (2013) have argued that the recent decades of economic development in China do not correspond with either phase one or phase two of the Lewis Model. That is, China

has neither seen a period wherein urban wages remain constant while rural wages are rising, nor has it seen a period in which rural and urban wages are rising at the same rate. In contrast, both urban and rural wages have been increasing, though urban wages have grown much faster than rural wages (Fields & Song, 2013: 5), as seen in Figure 2.

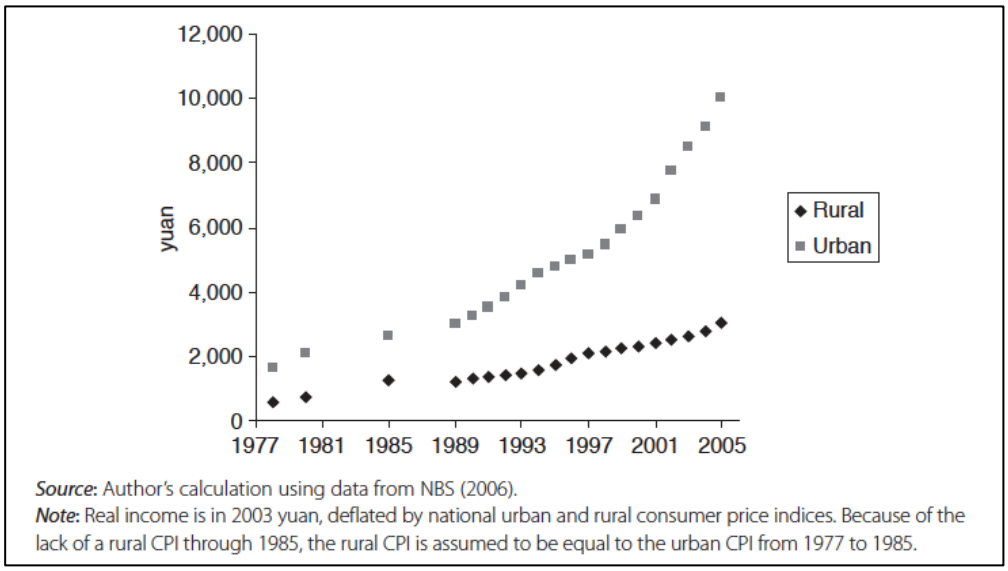

Figure 2: Real urban and rural per capita income (PCI), 1978-2005 (Park, 2008: 42)

As seen in Figure 2, there is a significant and rising premium of income in the urban parts of China, and rural income has simultaneously increased. It shows that between 1985-89, when there was a constant urban wage, the rural wage did not rise, and since 1989 the urban wage has been increasing at a much faster rate than rural wages. This would confirm the analysis of Fields and Song; that the Lewis Model is not capable of describing China's economic development. Moreover, it would indicate that China has already seen an end to rural surplus labour, which is not the case, as demonstrated by Jane Golley and Xin Meng (2011: 564) who show that 50% of the rural workforce is underemployed. This persistent surplus of labour in the agricultural sector is inconsistent with the rise in wages as shown in Figure 2. What then accounts for these trends in wages?

The urban labour market

Although urban areas have in general seen a significant rise in real wages in past decades, wage growth has been highly unequal between urban residents and migrants. While qualitative information might have shown this for decades, quantitative information has been scarce, as official Chinese data does not include information about migrant wages. Using data from the Rural–Urban Migration in China and Indonesia (RUMiCI) project, Golley and Meng (2011: 559) show that while over the past 10 years aggregated nominal urban wages have increased by 93%, migrant nominal wages have only increased by 30%. Controlling for the rise in living costs in urban areas, migrant urban wages may not have increased at all in the ten years preceding 2011 (ibid: 561). Knight et.al (2011: 11-12) further show that wages of migrants in comparison to the wages of urban residents fell significantly from 2001 to 2005. According to the Lewis Model which hypothesizes about wage earnings for migrants, though lacking a theory for wage differentials between migrants and residents, this trend in urban parts of China would indicate that it has not yet reached the LTP.

Several scholars have analysed the paradox of rising urban wages and surplus rural labour, and unanimously conclude that labour market segmentation is the key deterrent (Knight et al, 2011.; Golley and Meng, 2011; Fields and Song, 2013). The Chinese urban labour market is segmented into two employment sectors, (i) the state-owned enterprise (SOE) sector and (ii) the private sector. While there is no observed discrimination in the private sector, in the SOE sector workers with urban hukou are 35% more likely to be hired than those with rural sector, and the former group earn approximately 50% more than the latter (Fields and Song, 2013: 9). Such employment and wage discrimination clearly serve as strong explanatory factors for why migrant workers earn significantly less than urban workers, and why there is not quite as strong an incentive for migrants to move to cities (as Figure 2 suggests). However, in 2009 migrant workers still earned about 35% more than farm workers indicating that the urban wage should still provide a strong incentive for the rural workers to migrate, and hence, that the rural labour surplus is determined by other factors.

Barriers to migration

Importantly, higher costs of living in the urban sector may deter rural workers from migrating to urban parts of the country as it requires rural workers to have a greater amount of savings relative to income in order to sustain themselves in the cities, than for urban residents. Moreover, the hukou system which grants migrant workers temporary rather than permanent working visas in cities, bars them from access to the same social services as urban hukou holders. As this prevents them from accessing benefits such as health facilities, pension provision, and free schooling for their children, the system not only requires them to have enough savings to sustain themselves but also their dependents. The 2010 census showed that around 36 million migrant children lived in cities (Xu et al., 2018: 693), and reducing the family-related variable in their analysis increases the likelihood of migrating by 45% (Golley and Meng, 2011: 566). This illustrates that while many migrants wish to bring their families with them when migrating, and millions have already done so, the conditions that family members will live under in their destination is a strong determinant of migration. This is confirmed by Golley and Meng (2011: 567), who show that when removing the effect of institutional barriers, the probability of rural workers migrating increases from 20% to 36%, indicating that there is still a large population of rural workers that are willing to migrate.

It becomes clear that wage disparities aside, there are also many social disadvantages of migrating to the city due to the hukou system. This has led many scholars to argue that the Chinese government should in coming years reform the hukou system to increase the benefits of migration (Cai, 2010; Melander and Pelikanova, 2013). However, whilst recognizing the clear benefits of migration to economic growth, it poses a more fundamental question of whether migration is a preferred development path. Fields and Song (2013) reject the idea that migration is necessarily desirable because "there is no economic or moral reason to simply judge whether migration is good or not for people's economic well-being in a country" (Fields and Song, 2013: 7). Analysing the welfare benefits in China of reducing living costs in cities, easing hukou conversion, and driving rural development, they find that using two different social welfare criteria, rural development is the only policy that has unambiguously positive welfare benefits. Lewis' own paper, titled *Economic Development with Unlimited Supplies of Labour* (1954) does not provide any discussion of the social aspects of migration and development, thus implicitly endorsing the classical notion that economic growth equals development. It becomes clear, that while the Lewis Model serves as a useful tool for analysing growth in China, it may stand in contrast to other important developmental aspects such as social welfare.

Conclusion

As in the 1950s, the prospect of urban industrial work opportunities motivated millions of Chinese rural workers to migrate to cities after the easing of the hukou system in 1984. While high levels of migration have continued over the past decades, China is still experiencing a substantial population of surplus rural labour, despite the wage premium of the migrants over farm workers. A significant deterrent is the hukou system, which bars migrants from accessing social services; in this context, it becomes important to note that the Lewis Model focuses on economic growth, not development overall.

It may be concluded that the persistence of rural surplus labour accompanied by high rates of migration in the recent decades of China's economic development do in part vindicate Lewis. However, the institutional barriers posed by the hukou system, most likely exacerbated by urban labour market discrimination, still serve as a significant deterrent for migration, and this cannot be explained by the original Lewis Model. While such obstacles to migration may prove to be limiting factors of future economic growth in China, that is less likely to be the case for development overall, as migration itself is not necessarily welfare-improving for migrants. Future research should focus on how the hukou system could serve as an institutional framework for reducing urban-rural inequalities and shift focus away from migration-easing reforms, as they may not have the same overall developmental benefits.

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