

## [China's mobility barriers and employment allocations](#)

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In 1978, China was one of the poorest countries in the world on a per capita basis; it is now a middle-income country, and it is likely that the majority of its current population will have the experience of living in a high-income country. This phenomenal growth began in 1978 with the Household Responsibility System, which gave incentives to farmers to increase their productivity and to release labour from the farms. Combined with a simultaneous reduction in barriers to migration to the cities, the reforms led to the urbanization of agricultural labour and to industrialization fuelled by low-wage migrant labour. The ensuing Great Migration supplied labour to industry and led to the most phenomenal reduction in global poverty ever experienced in such a short period of time.

Yet, despite the migration of large numbers from rural to urban areas, labour productivity in rural areas in China is still a much smaller fraction of urban productivity than in other industrial countries. Agricultural productivity made gains in the first few years of reform but failed to continue closing the gap when industrialization began in the 1980s. Agriculture in China still employs about 20% of the workforce, well above the 1-4% levels present in countries like Germany and Japan. These facts indicate that mechanization of agriculture, productivity, and rural wages (and yields from own cultivation) are below the levels expected of a country entering the post-industrialization phase, and migration out of agriculture is lower than expected given the relative productivities of urban and rural employment. In this paper we argue that these facts can be explained by the restrictions still embedded in the *hukou* system of household registration. A simple reform, as we explain below, could move China closer to the industrialized countries with which it competes.

Introduced in 1958 as a kind of internal passport restricting migration, the *hukou* system was gradually relaxed beginning in the early 1980s. But despite these reforms, the majority of citizens still have an agricultural *hukou* issued in their rural area of origin, and despite the granting of urban *hukou* to some migrants, the majority of urban non-agricultural *hukou* belong to the original (pre-industrialization) urban residents. The official policy with respect to the registration system is that rural residents receive from the state a small plot of land, which they can cultivate. *Hukou* holders of each area receive social benefits provided by the local government that issues the *hukou*—most importantly connected to the education of their children and their family's health care. Migrants (predominantly agricultural *hukou* holders in urban areas) have no access to any of these services, unless they return to their village.

How does this system impact labour allocations in practice? In order to see how the registration system could lead to a relatively higher agricultural share and lower productivity from agriculture, consider the extreme case in which agricultural land can be used only by the family of the original grantee and social services in urban locations are not available to migrants at all. These restrictions effectively reduce the potential rewards from migration. Since rural migrants pay for social services, their real incomes in cities are less than the real incomes of urban *hukou* holders, even if they hold the same jobs. The situation with the land allocation is more complicated but it acts to keep land plots small and gives rise to additional disincentives to migration. If the rural worker decides to migrate because returns in the city are higher, he is faced with either leaving his family behind to cultivate the land or forfeiting his land allocation. Neither is a good option because family separation creates social problems and the land allocation is a net asset to him, which is then lost. Both of these act as barriers to migration. The outcome is that migration is lower than it would be in a free market, while agricultural employment is too high and productivity in agriculture is too low, both because of insufficient capital investment and because of excess labour.

Following the reforms of the 1980s, the Chinese authorities relaxed gradually the *hukou* restrictions and their policy towards land. Important reforms took place in 1998 and 2003, strengthening land tenure rights. But several surveys from Chinese regions still find that villagers fear that if they rent out their land village leaders will take it from them and reallocate it. Recently, beginning with the 2003 Act which was more effective strengthening tenure rights, a rental market has started to develop. But it is still far from perfect, as rents are low and villagers are still concerned about reallocations. We model the rental market when there is a risk that when the original grantee migrates, the village leader takes the land away and reallocates it to those who remain in the village. We show that because of the reallocation risk, the rental market clears at a lower rent than the competitive rent of a frictionless market. The difference between the competitive rent and the rent in the market that we model is interpreted as a risk premium borne (importantly) entirely by the migrant. As a result, the migrant worker receives lower rents from his land allocation than he would in a competitive market and the lower rent can be shown to be the monetary equivalent of the migration barrier due to the restrictions of the *hukou* registration.

We show in calibrations that the lower rents collected by migrants can explain a substantial part of the overemployment in agriculture and the underemployment in urban areas. We also model the employment allocations to village and township enterprises, where agricultural workers could work without losing their social benefits from their rural *hukou* and show that any underemployment in those areas is much less than in urban areas. But overall, the land policies of the local authorities are a greater barrier to industrialization and urbanization than their social policies.

Initially land rights were allocated for fifteen years but by the time these rights expired the legislation was reformed and second-round allocations were for thirty-year periods. A reform that guarantees this land tenure, regardless of what the villager decides to do with his land allocation, restores efficiency in the rental market for agricultural land. Some rural residents will want to stay in the village and cultivate their land allocation but the migrants now have the option of renting out their land and collecting rent when they are in the city. They could use the rent to pay for the social services that the urban authorities did not grant them. The result would be the creation of larger land plots, as some farmers would rent several plots and merge them into one, and the migrating villagers would collect a market return from their allocation. This reform removes the migration barriers to cities and restores efficiency (in the absence of other barriers) to allocations.