

The hukou system in china



No other creatures in the animal world form anything like cities. The closest resemblance would be a bee hive or an anthill, however in contrast to human agglomerations; they are closed to non-natives and not based on voluntary exchange (Bartlett, 1998, cited in O'Sullivan, 2009). The hukou (household registration) system, implemented in China in the late 1950's and still being enforced today, assigns a hukou location to every Chinese citizen that curtails self-initiated moves and limits migration from rural to urban areas (Fan 2005).

These restrictions create agglomerations much like those described by the hives and the hills of nature, and it is questioned whether such restrictions are preventing Chinese cities from obtaining a socially optimizing equilibrium. This essay looks to discuss the determinants of city size, the effects of the hukou system on these determinants and hence evaluate whether Chinese cities are induced to. The size of a city can be distinguished between its size in terms of land mass and its size in terms of population.

For this issue we shall mainly focus on population. Ravenstein's (1889, cited from Fan, 2005) laws of migration introduced the notion that people move in order to better themselves economically. In this view, migration is considered as the individual's response to regional differentials in economic development.

Similarly, neoclassical theory views migration as an outcome of geographic differences in labor demand and supply (Sjaastad 1962, cited from Fan, Firms and hence labor force are attracted to cities as they provide agglomeration economies and economies of scale, efficiently concentrating

infrastructure and other common resources via labor-pooling, knowledge pill-overs and economic competition, thus raising productivity, and hence wages (O'Sullivan, 2009).

Ultimately it is a migrant's utility that influences their decision to migrate from place to place. O'Sullivan (2009) relates the utility of a worker with the total workforce within a city, From this example it can be shown that cities may be too large, but not too small. The utility curve reaches its maximum with 2 million workers in a city so a region with 6 million workers will maximize utility with 3 cities, where utility has adjusted until workers are indifferent between the two cities.

If cities are too small, so for example if there are 6 small cities each with 1m workers, there is an unstable equilibrium because the utility curve is positively sloped at this point. If a worker moves from one small city to another they create a utility gap as the population in one has decreased - and hence utility - while the other increased. This gap encourages even more movement, and as self-reinforcing effects generate extreme outcomes, the extreme outcome is that everyone will move from one city to another, making the city 'disappear'.

However when you have two large cities, with m workers each, when a worker moves and a utility gap is created, utility is actually higher in the smaller city (perhaps due to congestion and overcrowding in the now larger city) making migration self-correcting rather than self-reinforcing. Migrants will then either move back to the smaller city, or existing inhabitants of the

larger city will move to the smaller one until a stable equilibrium of 3 million workers.

The hukou system's restrictions will limit worker's ability to migrate between cities and it is almost certain that an optimum equilibrium state will not be reached. Workers will be contained within the region they currently reside and while it may be possible for equilibrium to be reached within the region, it limits the probability of it being optimal dramatically.

This reflects Andes'(1995) view that political forces, more so than economic ones, drive urban centralization, hence cities are induced. While migration may be a major factor in the determination of city size, " cities are engines of economic growth" (Lucas, 2001, cited from O'Sullivan, 2009), regardless of migration restrictions. Krugman (1991) says that economic growth is induced through agglomeration economies, with elements of labor-pooling, knowledge spill-overs and technological innovation.

With these elements, growth can be induced by increasing the productivity and income of human capital (O'Sullivan, 2009), learning and innovating production and management techniques from one another (Porter, 1990 cited from Glaeser, 1992) and hence as a result of a combination of the previous two, results in technological innovation, further increasing productivity and efficiency (Krugman, 1991). As a result of internal economic growth, O'Sullivan (2009) depicts this graphically again with respect to worker's utility and population, Figure 2.

Growth induced by innovation shifts the utility curve outwards. People will then want to move to the innovative city and close the utility gap until a new

equilibrium b and s . This however brings about an important point. The new equilibrium can only come about if labor migration exists. With the hukou system, migration is restricted which will result in innovative cities always having a higher utility than those who don't and hence because of such a disequilibrium, the majority of Chinese cities in effect are induced into being 'too small'.

The equilibrium j cannot be reached as innovation cannot "become contagious" across cities, in which both cities will innovate at the same time. Jacobs (1969, cited from Glaeser, 1992) further supports the notion that internal economic growth alone is not sufficient as most important knowledge spill-overs come from outside the industry, and as a result of labor migration restrictions, such knowledge is limited to flourish growth.

Scherer (1982, cited from Glaeser, 1992) presents evidence strengthening Jacob's view, indicating that around 70% of innovations in a given industry are used outside the industry. To summarize, labor mobility underpins the validity of O'Sullivan's theories on utility and population size within a city and the ideas of internally induced growth put forward by Lucas, Krugman, Glaeser and O'Sullivan. Without labor mobility, labor cannot close utility gaps, therefore not allowing the theoretical possibility for them to become too big, but not too small.

A city's internal ability to induce growth is limited in Jacob's view if the majority of increases in productivity and innovation as a result of knowledge spill-overs arguably come from outside the industry, and hence city. The hukou system's power to restrict labor movement, restricts the possibility of

" human containers shipping complex, uncodified information" (Storper, 2001) required for innovation from one interprovincial city to another, hence limiting the ability for growth. Chinese cities in effect, are forced into being 'too small'.

In conclusion, Myrdal (1957) argues a stable equilibrium assumption implies that a social process follows a direction, this in his view is wrong. It can be possible that some exogenous change has such strength and irection to bring the system to rest, however it is not a natural outcome and is furthermore unstable. Such a state can also be achieved through policy intervention - the hukou system in this case. Storper (1989) adds to this saying " growth is the pivot on which industrial geography turns, and change is the only constant in a world of persistent disequilibrium.

Metaphorically, such an equilibrium (or disequilibrium relative to a less restricted system) resulting from the hukou system, contains provincial regions separately from one another rather than allowing a concoction give ise to a mass growing system. It can be argued however that smaller cities can be more desirable than those heavily under the influence of urban sprawl, exempting the dis-economies of increased congestion and commuting costs (Bruekner, 2000).

But the strength and benefits of agglomeration economies in pushing cities to grow outweigh such by-products, as these can be addressed because of the innovation that is created. However, as discussed in this essay, there is much resentment against the hukou system. Huifeng (2010) presents a joint editorial in 13 Chinese mainland newspapers hat called on the nation's top

legislative body to abolish the hukou system, as the strict population controls have split the country into rural and urban areas.

He continues to say as the mainland has developed in recent decades, concerns have been expressed that the system may be doing more harm than good, with the divide between the urban and rural populations growing into a chasm. If the restrictions were lifted, a natural flow will be brought about onto the Chinese economy, allowing Chinese cities and regions to converge towards O'Sullivan's optimal equilibrium's, no longer rendering them 'too small'.