

Chapter 1

Introduction

China has been undergoing a major transition not only of its economy but also of its institutional system. Having transitioned from a planned, centralized, and closed economy to a more market-influenced, decentralized, and open economy, the institutional system has been undergoing continual evolution. However, the conventional view is that this institutional development has not been as successful as the economic transformation. Among the “unsuccessfully transformed” institutions, the most important is the household registration system (*hukou* or *hujū*), which continues to exert a major influence on citizens’ rights and access to public services. Taking the 1958 “Regulations on Household Registration” as the starting point, the system has operated for over 60 years, undergoing significant changes during the last 45 years of reform.¹ Initially, the *hukou* system was established to form a key component of the planned economy, with its focus on heavy industry. The system placed strict controls on internal migration and allocated different rights and welfare to different *hukou* classifications. Eventually, this restrained not only labor mobility but also social mobility, impeding China’s economic development (Mallee, 1995).

Since the late 1970s, to promote economic development, China has undertaken profound, extensive institutional reforms, modification of

¹This dating is controversial. Lu (2002) argues that equating the *hukou* system with the 1958 registration ignores the institutional significance and cuts off the historical continuation of the system. Nevertheless, most literature considers 1958 as the formal start of the system.

the *hukou* system being one of the most important. The formerly rigid system has witnessed dramatic changes with reforms such as the mid-1980s deregulation of labor mobility control, the 1990s blue-stamp (*lanying*)² *hukou* reform, the early 2000s opening of *hukou* of small cities and towns, the points system (*jifenzhi*)³ reform, the 2014 phasing out of the distinction between agricultural and non-agricultural *hukou*, and the current “War for Talents” (*rencai zhengduozhan*).⁴ With moves to a more market-influenced and open economy, reform was inevitable. In turn, reform of the *hukou* system by loosening labor mobility and significantly weakening its resource allocation function has contributed to the general process of socio-economic transformation.

Analytical literature has highlighted this impact on China’s socio-economic transformation, both positively and negatively. Some scholars have regarded the *hukou* system as an institutional obstacle that impedes dual-structural transformation (Cai and Wang, 2010), urbanization (Chang and Brada, 2006), population agglomeration (Au and Henderson, 2006), and domestic consumption (Song *et al.*, 2010). Others have viewed the system as one of the pillars contributing to China’s rapid industrialization and development model, with respect to labor market protection (Cai *et al.*, 2001), Lewis Transition circumvention (Wang, 2005), the maintenance of human capital levels (Fan and Stark, 2008), and capital accumulation (Vendryes, 2011). In addition to differences about its impact on the economy, the system has been criticized for contributing to social stratification (Wu and Treiman, 2004; Lu, 2008), inequality (Afridi *et al.*, 2015), discrimination (Song, 2014), and social exclusion (Zhang *et al.*, 2014). While migrant workers without a local *hukou* do have access to local public facilities, their access to related benefits

²This type of *hukou* offers less welfare than the formal *hukou* but more welfare benefits than a non-local one in terms of education and healthcare. Rather than the red stamp of the formal urban *hukou*, it carries a blue stamp.

³The government converts various criteria, including schooling, work skills, and contributions to social insurance, into credit points, which accumulate to help obtain the local urban *hukou* (Zhang, 2012).

⁴Since 2017, many big cities have begun to introduce a series of preferential *hukou* conversion policies to compete for “talents” to enhance their economic vitality.

(local subsidies, education, housing, and unemployment relief) and socio-political activities (elections and political appointments) is considerably limited (Song *et al.*, 2010; Saich, 2010; Hu and Saich, 2012; Saich and Hu, 2012; see Table 1.1). Yet, they must still pay local taxes (Wang, 2005).

Table 1.1. Welfare Linked to *Hukou* Today

Welfare	Regulations
Education	Migrants without local <i>hukou</i> are eligible for free education for public elementary and junior middle schools (nine-year compulsory education); eligible for public senior middle school, but not eligible for public kindergarten; must return to the place of <i>hukou</i> registration to take the National College Entrance Exam (<i>gaokao</i>) after senior middle school.
Employment	Migrants without local <i>hukou</i> can freely access the open labor market and national public servant recruitment; limited access to local public servant recruitment, with regional variations.
Housing	Migrants without local <i>hukou</i> can freely access the housing market in most cities; have limited accessibility to the housing market in some big cities and megacities that have house purchase restrictions; are not included in the local housing security system, for example, economically affordable housing.
Healthcare	Migrants without local <i>hukou</i> can freely access all local health institutions for self-paid medical services; are eligible for medical insurance schemes for all urban workers, but are not eligible for basic medical insurance schemes for local <i>hukou</i> residents. The medical insurance scheme has rural–urban and regional differences.
Provision for the Aged	Migrants without local <i>hukou</i> are eligible for the old-age pension scheme for all urban workers, but not eligible for the old-age pension scheme for local <i>hukou</i> residents. The old-age pension scheme has rural–urban and regional differences.

(Continued)

Table 1.1. (Continued)

Welfare	Regulations
Other Social Insurance (unemployment insurance, work-related injury insurance, maternity insurance)	Migrants without local <i>hukou</i> are eligible for all if they possess a legal labor contract. Rural <i>hukou</i> holders are not included; the insurance schemes have regional differences.
Minimum Living Standard Support	Minimum living standard support has rural–urban and regional differences. In large cities, the standard for urban <i>hukou</i> holders is higher than that for rural <i>hukou</i> holders; the standard in developed areas is higher than that of underdeveloped areas.
Land	Only rural <i>hukou</i> holders are entitled to rights of rural land use, receiving income, and transfer fees; only rural <i>hukou</i> holders are eligible for farm-related subsidies from the government.

While most studies have recognized the negatives, the system still exerts a fundamental influence and enjoys considerable institutional legitimacy and administrative effectiveness in today’s China. In many areas, the current *hukou* system remains potent and intact (Chan and Buckingham, 2008), especially in large cities that are the more desirable destination for migrants. In fact, *hukou* system reform seems to have progressed well only in smaller cities. Large cities that provide a high level of public service tend to have tougher entry barriers for attaining their *hukou* than smaller cities (Zhang and Li, 2012), with stricter regulation limiting the coverage of social welfare (Wang *et al.*, 2010; Zou and Li, 2013; Zou, 2017). Although there are the numerous examples of local *hukou* reform, such reforms, without exception, favor a minority of highly skilled labor and exclude the majority of low-skilled migrants. The 2014 nationwide *hukou* reform⁵ phased out the distinction between agricultural and non-agricultural *hukou*. However, there was no fundamental change in how the system

⁵“Guanyu jin yibu tuijin huji zhidu gaige de yijian” (Opinions on Further Promoting the Reform of the Household Registration System), available at http://www.gov.cn/zhengce/content/2014-07/30/content_8944.htm.

functioned as a whole and local governments often applied additional criteria to restrict access to public services associated with urban *hukou* (Tao *et al.*, 2011; Chen and Fan, 2016). Consequently, the effects of this round of reform have been limited.

More recently, the government sought to further reform the *hukou* system to facilitate what it terms a new type of urbanization (*xinxing chengzhenhua*), the development of urban–rural integration (*chengxiang ronghe fazhan*), and serve the goal of establishing a high-standard market system (*gaobiao zhun shichang tixi*). At the end of 2019, the central government issued new guidelines⁶ to promote *hukou* reform in large cities, expanding the coverage of basic public services and deepening related supportive policies. The guidelines stipulate the complete removal of restrictions in cities that have a population of under three million residing in the urban area (*chengqu*).⁷ For those large cities with a population between three and five million, the requirements are to be relaxed comprehensively, while the points system is to be improved for megacities with a population of over five million. This approach also figured in the 2021–25 14th Five-Year Plan in 2021.⁸ While these are all positive steps for promoting urbanization, the government remains careful in pushing *hukou* reform in megacities that are the more favored destinations for migrants.⁹

In 2000, the “floating population”¹⁰ was already 121 million, 9.5 percent of China’s total population. By 2010, the number reached

⁶“Guanyu cujin laodongli he rencai shehuixing liudong tizhi jizhi gaige de yijian” (Guidelines on Promoting the Institutional Mechanisms Reform of Social Mobility of Labor and Talent), available at http://www.gov.cn/zhengce/2019-12/25/content_5463978.htm.

⁷Urban area excludes the rural counties in the city.

⁸Available at http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm.

⁹According to the Floating Population Dynamic Monitoring Surveys, 68 percent of rural migrants who wish to obtain urban *hukou* prefer large cities (Chen and Fan, 2016).

¹⁰“Floating Population” (*liudong renkou*) refers to the population where there is inconsistency between residence and registration (*renhu fenli renkou*: those who have been residing in places other than their registered streets or towns and have been away from their registration areas for over half a year), excluding those intra-city. Intra-city inconsistencies refer to those people whose residence and registration do not match but they are still in the same municipality in the same or different districts.

221 million, 16.5 percent of the population, while the seventh national census (May 2021) showed the floating population had reached 376 million, 26.7 percent of the total population.¹¹ Thus, the number of rural–urban and regional migrants remains large and is growing, but the *hukou* regulations considerably constrain their access to *hukou*-based social welfare (Chan, 2009).

After a period of rapid economic growth, since the 2010s, growth has slowed progressively. Growth prospects have been hit further by the impact of the COVID-19 pandemic. China’s GDP per capita passed \$12,500 (current US\$) in 2021,¹² indicating that China remained a middle-income economy. However, the slowing growth has increased concerns about whether China is facing the “middle-income trap” (Glawe and Wagner, 2019; Rozelle and Hell, 2020).

The 19th Party Congress (2017) announced a shift in economic strategy from rapid growth to “high-quality development” (*gaozhil- iang fazhan*) to deal with social and economic challenges.¹³ Social inequality, a slowing economy, and the “middle-income trap” all call for deep institutional reforms. As a key institution profoundly affecting labor mobility and residents’ welfare, the *hukou* system needs further reform to adapt to the new economic environment that is facing the challenges of an aging population, labor shortages, weak domestic consumption, and rising social inequality. Although social consensus supports *hukou* reform, progress has been slow and poorly managed, and how to promote further reform remains unclear.

Why Does the *Hukou* System Still Function Well

The following questions arise: If the system is so “bad”, why did China have it in the first place? Why does this “bad” institution still exist despite several rounds of reform? Why is further reform so hard? Most studies recognize that what is important now is not *hukou per se*, but the public services provided and the resource allocation functions attached to it. While true, this type of explanation is too

¹¹See <http://www.stats.gov.cn/sj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>.

¹²<https://data.worldbank.org>.

¹³See http://www.gov.cn/zhuanti/2017-10/27/content_5234876.htm.

general and cannot capture the whole story behind the *hukou* system. In fact, from a historical perspective, the system is not merely an arrangement that regulates internal migration and leads to rural-urban and regional welfare divisions. Its establishment and evolution have a deep economic logic. To address fundamental questions about the system's evolution and why reform is difficult, a comprehensive understanding of the *hukou* system, including its historical evolution, is necessary. This includes the driving factors contributing to both its institutionalization and reform, and how the system is impacted by and influences the economic transformation.

Despite extensive discussions about the system, some crucial issues remain unresolved, especially why the ill-reputed system still functions well in today's China. The research questions to be addressed in this book are as follows: (1) How did the *hukou* system evolve over time with the dynamic development of China's economy? What are the driving forces? (2) Has the evolution of the *hukou* system been efficient? From a dynamic perspective, how can the institutional efficiency of the system be evaluated? (3) In economic terms, how can we explain the current stickiness of the system?

Evolution of the *hukou* system is part and parcel of the economic reforms. From a command economy to a market-influenced economy, a traditional to a modern economy, a closed to an open economy, a centralized to a decentralized economy, changes in the *hukou* system have played a crucial role. However, the system has not been well understood. Many studies assume that individuals are passive institution-takers and the government is the active institution-maker. They view changes in the *hukou* system as the result of reforms generated by the government. Reforms initiated by the authorities increased migration, resulting in impressive economic development. However, this is just part of the story. Further questions need to be asked. Why did the government wish to reform the *hukou* system? How does one explain rising migration before the official *hukou* reform of the mid-1980s? Some scholars began to pay attention to the roles of non-*hukou* migration in *hukou* reform, which have improved our understanding (Solinger, 1999; Young, 2013). Theoretically, however, their explanations of the process of *hukou* system evolution can be supplemented, especially when it comes to the dynamic interplay between its evolution and economic transformation. This is the first core issue we address in the book.

Institutional economists have long been concerned with institutional efficiency. One would presume that the institutional efficiency of the system is higher in the reform era than in pre-reform period. The supporting evidence is the flood of migrants into urban areas, who contributed to China's "economic miracle". One further question is how we can further evaluate the institutional efficiency of the system set against an ever-changing economic environment. Various criteria have been used to evaluate institutional efficiency, including allocative efficiency measured by Pareto optimality, transaction costs, and cost-benefit analysis. However, these criteria are inadequate because they do not take into account temporal variation. To provide a deeper understanding of the evolution, important questions include how and why the *hukou* system changed in the pre- and post-reform periods. This is a key question to improve our understanding of the institutional efficiency of the *hukou* system and its evolution over time.

Since the mid-1980s, the mobility control function of the system has been gradually eliminated and the resource allocation function has been greatly weakened. However, this long-lasting system is still critical both throughout Chinese society and beyond. Since the system and China's economic development interact deeply, its economic efficiency is presumably an important reason to explain the questions above. Is the current *hukou* system efficient or not? If it is not, why does the *hukou* system still exist in China, and why is it so hard to reform? If it is, how do we explain it? What are the economic reasons that underpin the present "stickiness"? These related questions are also essential issues we cover.

Ultimately, the purpose of this book is to enrich current understanding of institutional change in transition economies and to emphasize the dynamic interactions between institutional change and economic development.

***Hukou* System in the Current Literature**

China's *hukou* system is a unique household registration system, despite similar systems in a few other socialist countries, such as the *ho khau* system in Vietnam and the *hoju* system in North Korea (Chan, 2009). It is one of the most important institutional

arrangements shaping population migration and resource allocation in China. Also, the system and its changes have played an important role in China's dual economy transition, economic growth, and social development. On the one hand, the system has contributed to rapid economic growth in China; on the other hand, the system has contributed to China's particular socio-economic stratification, injustice, and inequality.

The hukou system

The *hukou* system refers to a set of political, economic, and legal systems that manage household registration, including proof of one's identity, resource allocation, and wealth distribution (Lu, 2002). It is an institutional arrangement that is of fundamental importance in many aspects of Chinese life.

Wang (2005) regards the system as a unique tool of institutional exclusion and division. He classifies four types of institutional exclusion: who they are (Type 1), what they have (Type 2), where they are (Type 3), and what they have done or do (Type 4). The *hukou* system falls under Type 3 because every Chinese citizen must be registered with any change of location and type of registration regulated. In a similar vein, Zhang *et al.* use neo-institutionalism to analyze the institution of *hukou*-based social exclusion (IHSE). Using Scott's model of institutions, they identify the regulatory, normative, and cognitive pillars of IHSE: "(1) the extensive investment in a set of formal rules and regulations enforced by government; (2) the wide acceptance of these rules and regulations as appropriate and acceptable social values and norms; and (3) the prevalent *hukou*-based stigmatization and managerial practices among firms" (2014: 1451). They believe that this identification can help to deinstitutionalize this unethical institution by eliminating normative and cognitive *hukou*-based discrimination. Although they may be too optimistic about the abolition of the *hukou* system, their attempt to use the institutional perspective is enlightening.

The *hukou* system is easy to criticize with respect to social stratification, inequality, and discrimination. Alexander and Chan (2004) even regard it as a quasi-apartheid pass system similar to South Africa. Lu (2008) finds that China's social stratification is strongly influenced by both rural-urban *hukou* disparity and inter-city *hukou*

disparity (cities at different administrative levels). Utilizing a numerical simulation method, Whalley and Zhang (2007) show how the system significantly contributes to labor inequality. Afridi *et al.* (2015) find that *hukou* identities impact an individual's economic performance and social inequality. In a comprehensive literature review, Song (2014) outlines several *hukou*-based discriminations, including wage, hiring, and pre-market discrimination. Johnson (2017) argues that the system shares important functions with international bordering processes, in terms of migrant management and safeguarding the benefits of officially registered populations.

Some scholars have highlighted the positive aspects of the institution although this does not necessarily mean that they are supportive of the *hukou* system. For Cai *et al.* (2001), the system serves as an institutional basis of employment protection in the labor market. This avoids unbearable political costs to local governments that could be posed by potential protests due to unemployment among local *hukou* holders. Thus, the system, separating the rural and urban labor force protects urban labor employment, providing a political security guarantee during economic transition. Tie Li, an official with the National Development and Reform Commission, stated that the unique *hukou* system has avoided the emergence of large-scale slums in urban China.¹⁴ Other arguments highlighting the necessity of the system relate to concerns about the economic cost for cities, urban slums, congestion, health hazards, and crime (Chang and Brada, 2006).

Despite a consensus on the need for reform and despite several attempts, the current system remains intact (Chan and Buckingham, 2008), especially in large cities. Wu *et al.* (2010) and Zhang and Tao (2012) construct an indicator system to scale the difficulty of acquiring city *hukou* and show that there are higher entry barriers to obtaining *hukou* than smaller cities. In terms of the *hukou* reform, Wang *et al.* (2010) believe that small and medium-sized cities with a low level of public service provision will continue to relax controls until restrictions disappear, while in large cities with high initial public service provision, the threshold is stricter and they will retain relatively rigid requirements. Zou (2017) agrees with their statements

¹⁴See <http://politics.people.com.cn/n1/2019/1118/c429373-31460835.html>.

and points out that a self-reinforcing mechanism of *hukou* regulation exists in large cities in order to limit social welfare coverage.

Social injustice and inequality and the need to speed up urbanization to cope with the slowing economy provide incentives for the central government to adopt various policy documents to guide local authorities in *hukou* reform.¹⁵ Nevertheless, from the blue-stamp *hukou* reform to the current points system and the “War for Talents” reforms, large cities without exception favor highly skilled migrants. Song (2014: 204) holds that the present *hukou* policy in large cities is “almost totally geared towards the super-rich and the highly educated and is irrelevant to most of the migrants.”

Evolution of the hukou system

In the academic community, almost all agree that the heavy-industry-oriented development strategy in the 1950s is one of the main reasons for the formation of the *hukou* system. Deep reforms beginning in the late 1970s caused drastic changes in the *hukou* system. Cheng and Seldon (1994), in their comprehensive review of the formation of the system in the pre-reform era, include three periods: preparatory (1949–1952), initiation (1953–1957), and full-scale implementation, collapse, and reimposition (1957–1960). Yuan (2015) divides the evolution into five stages: initial formation (1949–1957), strengthening (1958–1977), limited adjustment (1978–1991), limited breakthrough (1992–2001), and exploration of integration (2002–2014). Zou (2015) identifies three periods: before the 1980s, strict migration restriction and non-discriminatory urban welfare distribution; from the 1980s to the end of the 20th century, relatively free migration and discriminatory urban welfare; and since the 21st century, free migration and non-discriminatory urban welfare distribution.

Some scholars have paid close attention to the logic behind the system’s evolution. Chi and Yang (2003) apply a demand–supply framework to analyze the changes, indicating that the mismatch and imbalance between institutional supply and demand drive the reform.

¹⁵For example, according to the “guojia xinxing chengzhenhua guihua (2014–2020)” (National New Urbanization Plan (2014–2020)), the Central Government’s goal is to strive to convert the registration of some 100 million agricultural workers and other “floating population” in urban areas.

Taking the *hukou* system as a formal institutional arrangement, they argue that the key to the changes lies in the strong promotion by the government, and reform is a process of exogenous, mandatory institutional change. Similarly, by emphasizing the role of the government in changes, Peng *et al.* (2009) argue that reforms were driven by policymakers' desire to achieve the instrumental goal of economic development and social stability. This caused them to abandon restricting citizens' free movement and access to related welfare. They also incorporated the floating population's rights' protection into the national social welfare policy. Wang (2011) emphasizes the role of local governments. Suffering under fiscal constraints, local governments promote change through two paths: interest diffusion, for example, the 1990s blue-stamp *hukou* reform to increase local fiscal revenue, and interest stripping, for example, stopping food subsidies to urban *hukou* holders in the 1980s to reduce fiscal expenditure.

He (2003) uses the framework of cooperative gaming to explain reforms and concludes that *hukou* reform is the outcome of a game between four stakeholders (central government, city managers, citizens, and farmers), with the result determined by the strength of the parties' negotiation capabilities. Similarly, Zhao (2009), using game theory, holds that reform involves the interaction between and compromise of the complex interests of policymakers, functional departments of the city government, urban residents, and migrants.

Studies employing institutionalism are rare, but those that have been undertaken are illuminating. Solinger (1999) analyzes the relationship of "structure and agency" in urban China to illustrate the interaction between urban "floating" migrants, markets, and the institutions under *hukou* regulations. For her, "structure" refers to the three powerful institutions: state-managed migration policies, urban bureaucracies, and the urban planning and rationing system that favored urban *hukou* holders. "Agency" refers to the urban "floating population" from the rural areas. Solinger shows how the power of the market draws the rural migrants to the cities and how their "contesting" behaviors become a driving force in urban institutional change. This notion raises the issue of how the *hukou* system is moderated from below. Young (2013) uses historical institutionalism to study endogenous change by emphasizing the role of migration and markets, focusing on how China's economic development model "makes use of the *hukou* system and how the system

has managed to endure the massive socioeconomic changes sweeping China.” He argues that evolution is the consequence of marketization and internal migration, which forced the government to reform the *hukou* policy to promote economic development. His work is the first attempt to systematically answer the question of why and how the *hukou* system has changed in the reform era under the framework of institutionalism. Using cost–benefit analysis, Ge (2003) concludes that the sources of *hukou* system change are mixed. It is not only an endogenous institutional change, which caters to the needs of the development of the socialist market economy, but also an exogenous institutional change, which is the state-led institutional change.

Efficiency of the hukou system

Relevant literature on efficiency of the *hukou* system mainly focuses on its impact on economic development, which has been vast and diffuse, producing mixed results.

Many scholars regard the *hukou* system as an institutional obstacle that impedes urbanization, dual-structural transformation, population agglomeration, and domestic consumption. Chang and Brada (2006) view the system as a major factor in holding back China’s urbanization, despite mass rural–urban migration in the later reform years. This urbanization lag carries a significant economic cost in employment opportunities impeding structural change and economic growth. Cai and Wang (2010) highlight how under the planned economy, the system separates rural and urban residents, preventing the proper functioning of labor market integration. *Hukou* reform that promoted labor mobility from the low-productivity agricultural sector to the high-productivity non-agricultural sector improved economic efficiency by rendering resource allocation more effective (Cai, 2017b). Au and Henderson (2006) argue that intra-sector migration restrictions hampered population agglomeration in both the rural industrial and urban sectors, creating “undersized” cities and GDP losses. Chen *et al.* (2010) investigate the differences in the consumption behavior of migrants and urban residents. They conclude that the marginal consumption propensity of migrants is lower than that of urban residents, and *hukou* deregulation would improve the household consumption level, especially for migrants. Dreger *et al.* (2015) agree that the system weakens household incentives to consume,

which, in turn, impedes policy attempts to shift the economic driver from export- and investment-oriented growth toward consumption-driven growth.

Although the system has its obvious downsides, some still argue that it is one of the pillars of China's rapid economic growth. For example, Wang (2005), using the dual economy theory, sees the institutional arrangement as contributing to China's rapid economic growth and technological sophistication. The *hukou* system has helped China to accumulate capital and circumvent the Lewis Transition in a dual economy because of the massive and cheap surplus labor, even though the migrants are treated unfairly and are disadvantaged. Counterintuitively, Fan and Stark (2008) develop a new equilibrium model, incorporating rural-urban migration, the externality effect of human capital, and agglomeration economies, to demonstrate that unrestricted rural-urban migration in developing countries leads to inefficiency for all individuals, no matter whether in cities or the countryside. This is the case when the human capital level plays a significant role in productivity. They believe that *hukou* regulation is important for urban development. Despite enhancing urban agglomeration, uncontrolled migration may significantly reduce the level of human capital in urban China. Using an overlapping generations model of a dual economy covering both developing and developed regions, Vendryes (2011) holds that *hukou*-based regulation is one of the causes of the high aggregate saving rate and a factor in rising capital accumulation and rapid economic development in China. From a dynamic perspective, Chen (2012) suggests that the impact of the *hukou* system on economic growth varies by stages. In the initial stage of economic development, when the role of physical capital is more important than human capital, the *hukou* system contributes to the urban production surplus and increases the accumulation of physical capital. This has a positive effect on economic growth. However, in the later stage of economic development, with the rise of the knowledge and information economy, human capital becomes the engine of economic growth, and the *hukou* system causes a reduction in human capital investment and accumulation, thereby having an adverse impact.

China has a complicated urban structure, and the tremendous differences between cities significantly affect the pace of *hukou* reform. After the 2000s, *hukou* system reform has been undertaken primarily

at the local level. An increasing number of studies have recognized that the system is not only an institutional arrangement regulating internal migration, creating rural–urban and regional welfare disparities, but also plays an important role in local economic growth. Deng and Ding (2010) argue that *hukou* regulation in large cities in developed areas is conducive to their economic growth and contributes to regional disparities. Li and Hong (2013) conclude that the looser the *hukou* regulation, the slower the city’s economic growth rate, with significant differences between regions. Zou and Li (2013) conclude that easing small and medium-sized cities’ *hukou* regulation is conducive to urban development. However, for large cities, it is not beneficial because of overloading the public services. Local economies can benefit from relaxation by attracting human capital (Rong and Bai, 2015; Zhang and Liu, 2019).

A general review

These studies have improved our understanding of the system and the reasons for its evolution. However, certain additions are required.

First, as a typical institution deeply affecting China’s economy, the *hukou* system is perfectly suitable for research under the framework of institutional theories (Solinger, 1999; Young, 2013). However, the current *hukou*-related literature has concentrated mostly on frameworks drawn from neoclassical economics. The use of institutional economics has been rarer and more limited in scope.

Second, most scholars have emphasized the impact of exogenous factors and have overemphasized the role of the government in bringing about change because of China’s well-known “strong state” label. This approach often neglects endogenous factors, which a few scholars have begun to acknowledge. For example, Solinger and Young emphasize the role of migrants and markets on reform. He (2003) and Zhao (2009) use a game theory framework to illustrate the interaction of multiple aspects in changes. However, theoretical development is still needed to improve the explanation of the institutionalization and reform of the system in both the pre-reform and reform eras.

Third, most studies concerning the efficiency of the *hukou* system have been from a static or at best comparative static point of view. There are few studies of the institutional efficiency of the system

that employ a dynamic perspective. However, this limitation cuts the link between institutional change and institutional efficiency. The *hukou* system and its evolution are embedded in China's dynamic economic system, which is continually evolving in uncertain economic circumstances. A dynamic rather than a static perspective is needed when studying the institutional efficiency of the *hukou* system.

Fourth, some scholars have started to analyze the economic efficiency of *hukou* system reform at the local level. However, they also exhibit some shortcomings, such as the measurement of *hukou* regulation, inability to incorporate the mechanism for selecting "talents" into their analysis, the inability to provide any empirical evidence to support their arguments, or endogeneity problems that may produce unreliable empirical results. Moreover, previous studies commonly concentrate on only one aspect of the *hukou* system, which tends to ignore links with other related issues, leading to a misinterpretation of policy implications. Therefore, a more grounded study is required that can develop a comprehensive analytical framework and strong empirical analysis.

An Institutional Paradigm

The methodology in this book applies the theoretical framework of institutional economics to analyze the dynamic relationship between the evolution of the *hukou* system and economic transformation. This study comprises deductive and inductive analysis, theoretical and empirical analysis, and dynamic and comparative static analysis.

Institutional perspectives, often neglected in the current literature, are useful in dealing with *hukou*-related issues. Although a precise definition of institutions is beyond a settled issue (Hu, 2007), various definitions suit China's *hukou* system. North's (1994: 360) classic definition regards institutions as "the humanly devised constraints that structure human interaction," both formally and informally. Depending on the research objectives, other scholars have defined institutions differently. For example, Greif and Laitin (2004: 635) define institutions as "a system of human-made, nonphysical elements, exogenous to each individual whose behavior it influences that generates behavioral regularities." Aoki (2007: 6) proposes that

“an institution is self-sustaining, salient patterns of social interactions, as represented by meaningful rules that every agent knows and are incorporated as agent’s share beliefs about how the game is played and to be played.” The *hukou* system is a human-made formal institution that is exogenous to each individual, enforced by the legal and regulatory system. It shapes the shared beliefs of the society, which influences rural–urban and regional labor mobility, and functions as a base for resource allocation. In this respect, institutional change theory can be a promising analytical tool for a historical examination of the system’s evolution.

Increasingly, scholars have realized that exogenous institutional change theories based on the notion of China’s strong state capacity cannot account fully for the institutional dynamics (Tang, 2011). By contrast, endogenous institutional change theory¹⁶ has become more popular in institutional economics because of its reliable explanatory power. Exogenous explanations tend to overlook the active role of individuals and local players in the system. In fact, before *hukou* reform in the mid-1980s, informal rural–urban migration had become increasingly common across China. Even though, at the time, the government strictly controlled formal migration, risk-taking individuals and local forces could bypass the institutional constraint using informal connections and became the precursor of *hukou* system reform. Such endogenous forces have frequently been overlooked. This study uses endogenous institutional change theory to analyze the system’s evolution.

First, this work constructs a theoretical framework of endogenous institutional change to analyze the co-evolution of the *hukou* system and the Chinese economy. We investigate the institutionalization and reform of China’s *hukou* system during the centrally planned era, as well as during the more recent economic transformation. The theoretical model builds on findings from existing studies. Greif and Laitin (2004) and Greif (2006) study institutional change and persistence and their conceptualization of quasi-parameter renders their analytical framework more tractable. DellaPosta *et al.* (2017) focus on the

¹⁶Endogenous institutional change theory emphasizes the bottom-up adaptive adjustment of institution against ever-changing circumstances. See Greif and Laitin (2004), Greif (2006), Nee and Oppen (2012), and DellaPosta *et al.* (2017).

interplay of three mechanisms — net utility, network externalities, and state accommodation — which complements our understanding of the connection between micro-level action and macro-level change.

Institutional change can either benefit or harm economic performance, and what matters is whether the institutional change is conducive to producing an efficient outcome. The evaluation criteria of institutional efficiency, including Pareto optimality, transaction costs, and cost–benefit analysis, are commonly used in current literature. However, the measurement of institutional efficiency needs to take environment dynamics into consideration. This aspect has received less attention. The *hukou* system exists within an ever-changing economic environment. On the one hand, the system affects economic development through its influence on labor mobility and resource allocation. On the other hand, the economic dynamics have a profound impact on the system, creating the need for adaptation. North (1990) proposes that adaptive efficiency¹⁷ is a useful concept for evaluating institutional efficiency in an ever-changing environment. This offers an alternative approach for evaluating the evolution of the *hukou* system.

Second, this research applies the theory of adaptive efficiency to assess the dynamic economic efficiency of China's *hukou* system during both the pre-reform and reform eras. Since adaptive efficiency is generated from the interaction between an institution and the continually changing environment, the concept of coupling can provide a possible approach to evaluate the adaptive efficiency.¹⁸ We combine empirical analysis with a coupling model to quantify adaptive efficiency. To better understand the concept of adaptive efficiency, we divide the term into two parts: adaptation and efficiency. Adaptation is the process generated from the interaction between an institution and its environment. This interaction can be captured by the concept of coupling (Li *et al.*, 2012). We assume that a situation in which

¹⁷ Adaptive efficiency represents the ability of an economic system to self-organize and suitably modify its institutional structure and eliminate institutional failure as problems evolve. References for the theory include Pelikan (1986), North (1990, 2005), and North *et al.* (2009). It was first proposed by Marris and Mueller (1980).

¹⁸ Coupling describes the phenomenon whereby two or more systems influence each other through various interactions.

an institution and the environment coordinate effectively with each other means that the institution is well adapted to the economic environment. The higher the degree of coordination, the higher the degree of adaptation.

Finally, one should note that the process of undermining and reinforcing an institution can be intertwined and overlapping at the same time. This phenomenon usually leads to the evolution of more complex institutions. In fact, despite the drastic undermining of the rigid *hukou* system over 40 years, the current system has been reinforced in some ways (Zou, 2017). This affects its adaptive efficiency under new circumstances. Increasingly, scholars have come to believe that the fundamental issue in the reform is the economic efficiency of the system.¹⁹ Whether the *hukou* system should be relaxed depends on its internal relationship with local economic growth. To explain the efficiency of and illustrate the current “stickiness” of the *hukou* system, it is necessary to have a clear and solid understanding of how its reform impacts economic growth at the local level. This study proposes a theoretical framework to explain the institutional efficiency of the current *hukou* system and uses the endogenous economic growth model with instrument variable techniques to test the impacts of the *hukou* system on local economic growth.

Manner of Evolution of *Hukou* System Matters

Since the 1990s, neo-institutionalists have united around the idea that “institutions matter”. Nevertheless, often they ignore an important issue — the way in which institutions change also matters. Much attention has been devoted to identifying “good” and “bad” institutions, but there has been comparatively less written about the proper way to transform “bad” institutions into “good” ones in a way that enhances economic performance (Ahrens and Jünemann, 2011). Understanding institutional change is an important task in studying economic dynamics, especially for a transition economy like China’s. Studying the change of the *hukou* system in dynamic economic circumstances has both a theoretical and an empirical significance.

¹⁹See Deng and Ding (2010), Li and Hong (2013), Zhang and Liu (2019), and Zou and Li (2013).

First, there is a generally held perception that China's institutional transformation has not been as successful as the economic transformation. China's economic transformation began with supposedly ineffective, low-quality institutions. After 40 years of rapid economic growth and social development, conventional institutional theories point to a slow evolution of institutions. The conundrum of rapid economic transformation but slow institutional development poses a challenge for conventional institutional theories. This has fueled an extremely lively debate in Chinese academic circles about institutions and economic consequences. A historical investigation of the *hukou* system will improve our understanding of the logic of public policy change and institutional change in general.

Second, institutionalists often overemphasize that "the causality runs from institutions to economic development, ignoring the important possibility that economic development changes institutions" (Chang, 2011: 476). Seemingly, developing economies could solve their economic problems and catch up with developed economies through reforming poor-quality public policies and adopting so-called "good" institutions. International experiences, however, indicate that this is not always the case. The relationship between institutions and economic development is not always so straightforward. Neither economic growth nor "good" institutions come first in development, and they are co-evolving (Ang, 2016). This research offers a novel examination of the dynamic interactions between institutional change and economic development. Specifically, using the case of the evolution of the *hukou* system and its interaction with economic transformation, this study seeks to analyze both the role of institutional change in economic dynamics and the role of economic transformation in institutional change.

Third, institutional change may be generated in an endogenous or exogenous manner, or even a combination of both (Greif and Laitin, 2004). Nevertheless, in an authoritarian regime such as China, people tend to believe that institutional change is more likely to be initiated through centralized processes, and individuals and local-level players are the passive institution-takers with little influence on government behavior. Thus, sources of institutional change are seen to be exogenous, with the central government playing the decisive role. In reality,

bottom-up forces also play significant roles in China's deep reform (Nee and Oppor, 2012). China's *hukou* system and its evolution offer an opportunity for the systematic study of the sources of institutional change under uncertain circumstances within a dynamic economy.

Last, but not least, since *hukou* system reform has become inevitable in dealing with both economic and social issues, a historical and systematic study is necessary to detail the origin, driving forces, and the change process of the system and the reasons for its "stickiness".

This book makes at least four contributions to the literature. First, using institutional economics, we provide a new approach to researching the *hukou* system. Although many studies have contributed to exploring related issues behind the *hukou* system, there is a role for in-depth analysis and improvements to better understand the system and its evolution. The study seeks to show that institutional theories can be better tools for *hukou*-related research and, more broadly, public policy research in transition economies. Second, the study establishes a theoretical framework of endogenous institutional change to analyze the system and its evolution. More generally, the theoretical framework improves our understanding of institutional change under the condition of a dynamic economy, and offers a potentially fruitful avenue for future research. Third, in terms of evaluating institutional efficiency, traditional approaches may be weak because of their static nature. The application of the dynamic concept of adaptive efficiency and the use of the coupling model in evaluating adaptive efficiency provide alternative ways of assessing institutional efficiency in the continually changing circumstances within which institutions are embedded. Fourth, based on a similar theoretical foundation, this study bridges endogenous institutional change and adaptive efficiency. Endogenous institutional change theory stresses the roles of the key players in institutional development. Through the interactions between institutions and the ever-changing economic environment, institutions adapt to and coordinate endogenously with the environment, generating adaptive efficiency. The emphasis of adaptive efficiency on innovation, experimentation, and creative destruction makes it an appropriate method to evaluate endogenous institutional change.

Road map of the book

The remainder of this book is as follows:

Chapter 2 presents the theoretical framework, outlining why we treat the *hukou* system as an institution, highlighting the limitations of exogenous institutional change theory in explaining institutional change, and reviews the representative theories of institutional efficiency and its evaluation. We argue that adaptive efficiency is a more appropriate concept to understand and evaluate institutional efficiency under uncertain circumstances. Further, we explain why the concept of adaptive efficiency can be a useful tool for evaluation of institutional efficiency.

Chapter 3 provides a historical review of the institutionalization of the *hukou* system and its interaction with the planned economy in pre-reform China. We discuss the exogenous logic of the institutionalization of the system, explaining how the two functions of internal migration control and resource allocation impacted the system as the planned economy developed. We conclude that the institutionalization of the rigid *hukou* system is brought about by exogenous change, with top-down implementation. Central government enforcement played a dominant role, with individuals and local governments neglected.

Chapter 4 covers the four key impacts of the interaction between reform of the *hukou* system and China's economic transformation: improvement of agricultural labor productivity, structural change (including the industrial structure and rural–urban structure), marketization, and globalization. We focus on the endogenous logic of the reform, arguing that it is fundamentally a bottom-up driven process, in which spontaneous market forces and the role of local governments take center stage.

Since the 1980s, discretion over *hukou* policy has been gradually localized. Chapter 5 focuses on the relationship between *hukou* and welfare and decentralization. We cover local practices such as the blue-stamp *hukou* reform in the 1990s, the opening of *hukou* in small cities and towns in the early 2000s, the points system reform, and the recent “War for Talents”. The case study of Zhengzhou's *hukou* reform illustrates how radical reform may fail in large cities. Local experiments with *hukou* reform reveal that any change in the

relationship with welfare provision is much more complicated than that of the control function over population mobility.

Chapter 6 applies adaptive efficiency theory to the evolution of the *hukou* system. The five components of the system's evolution (property rights, the decision-making process, transaction costs, competition, and innovation and experimentation) are investigated to understand how the institutionalization of the system constrained its adaptive efficiency and how reform generated adaptive efficiency. Our empirical study reveals that the adaptive efficiency of the system in the reform era is much higher than that in the pre-reform era, but since 2008, there has been a marginal decrease. This suggests that, despite adaptive efficiency, the system faces difficulties. To understand the situation better, we establish a framework for economic analysis and an endogenous growth model to explain the adaptive efficiency of the current *hukou* system, despite the system's "stickiness". We argue that it is the linkage between *hukou* and social welfare that is the key to understanding why local economies can benefit from the current *hukou* system, especially in large cities.

Chapter 7 summarizes the key research conclusions and puts forward suggestions for further reform of the *hukou* system to improve its adaptive efficiency. It also sheds light on implications for institutional research beyond the *hukou* system.