

Institutions, Labor Mobility, and Foreign Direct Investment in China and India

Yu Zheng¹

Fudan University

yzheng@fudan.edu.cn

Forthcoming, *Studies in Comparative International Development*

Abstract

Why did China and India, despite their similar natural factor endowments and growth trajectories, attract different types of FDI? This article shows that micro-level institutions in China and India, particularly a set of regulations governing labor and land markets, shape their domestic labor mobility and consequently affect their FDI patterns and development paths. China's high labor mobility motivates foreign firms to concentrate in labor-intensive manufacturing to exploit the benefits of scale economies. India's low labor mobility motivates foreign firms to move away from unskilled-labor-intensive manufacturing and invest in the modern service sector where the demand for skilled labor is relatively high.

Key Words:

China, India, foreign direct investment, economic development, domestic institutions, labor mobility

¹ I am grateful for the financial support from the East Asian Institute's EAI Fellowship program and the India China Institute at the New School. I thank Mark Frazier, Stephan Haggard, Betty Hanson, Rosie Hsueh, Shiping Tang, Wenfang Tang, Vamsi Vakulabharnam, SCID editors and two anonymous reviewers for their helpful comments.

The more than two decades of rapid economic growth in China and India are arguably the most important development stories since the 1980s. These two countries share a number of similarities in the history of economic development. Having struggled in the state-directed autarkic industrialization for several decades, both countries undertook economic reforms by reducing trade barriers and liberalizing domestic markets. China began its “reform and opening up” in 1978 and further liberalized its economy in 1992. India’s economic reform started in 1991, but its economic growth had already begun to accelerate around 1980, thanks to the government’s shift from left-leaning, anti-capitalist rhetoric to a growth-oriented, pro-business strategy (Rodrik and Subramanian 2005; Kohli 2007).

Despite their similar objectives and policies of economic reforms, China and India have demonstrated different development patterns. Labor-intensive manufacturing has been the primary driver for the Chinese economy whereas the service sector, particularly IT and financial services, plays a key role in the Indian economy. In other words, both countries have integrated into the global market but with distinctly different roles: China is the world’s workshop whereas India is its office.

A simple statistical analysis, however, would suggest that this seemingly natural choice of global division of labor is the exception rather than the rule. Figure 1 presents the correlation between the shares of manufacturing or service in GDP and log per capita GDP from 1980 to 2014. Both China and India appear to be anomalies, albeit in different ways. China’s manufacturing share of GDP is substantially higher, and its service share is markedly lower, than the global norms. In contrast, India’s service share of GDP is noticeably higher, but its manufacturing share of GDP is generally lower, than the global norms.

[Figure 1 here]

The distribution of foreign direct investment (FDI) is consistent with the patterns of economic structure. Whereas China's FDI is concentrated in the manufacturing sector, India's FDI is mostly in the service sector. Table 1 compares FDI shares in the manufacturing and service sectors. Between 2000 and 2010, China's manufacturing and service sectors received 59 percent and 38 percent of FDI inflows respectively. In contrast, India's service sector attracted 68 percent of FDI inflows whereas the manufacturing sector received 30 percent. The results are similar when we use the more comparable international standard industry classification. Between 2008 and 2010, the Chinese manufacturing and service sectors received 51 percent and 44 percent of FDI inflows respectively. In India, the service sector attracted 70 percent of FDI whereas the manufacturing sector received only 25 percent.

[Table 1 here]

The traditional international trade model (the Heckscher-Ohlin model)—that relative factor endowments are a major determinant of a nation's comparative advantage—would predict that for labor-abundant, land-scarce developing countries, increasing openness to trade would shift their economies towards greater specialization in labor-intensive manufacturing exports. A systematic evaluation of export patterns shows that China and India indeed have similar comparative advantage in labor- and resource-intensive manufacturing (Batra and Khan 2005). Why did these two similarly endowed economies differ in their FDI distribution and economic structures?

Scholarly works suggest that technology, human capital, and educational attainment are the prominent factors that contribute to the different competitive advantages in China and India (Asuyama 2012; Nahm and Steinfeld 2014; Patibandla and Petersen 2002; Kapur et al. 2001). Political regimes provide another convenient explanation for their differing state capacity.

China's authoritarian regime has been credited for its great deal of state capacity in building a world-class infrastructure, whereas India's democratic government has often been criticized for its lack of capacity for improving its outdated infrastructure (Yardley 2011).

Although the allocation of political power may be a fundamental cause of economic performance as they determinate the constraints and incentives of economic behaviors, it is inconclusive, both theoretically and empirically, that political regimes are strongly correlated with economic growth (Przeworski et al. 2000), because "the mere fact that a country has democratic institutions tells us very little about whether it is well or badly governed" (Fukuyama 2011). Indeed, as Rodrik (2007) notes, a wide range of institutional factors might produce similar growth rates in different countries or lead similar countries to different growth trajectories.

There is an increasing consensus that the key sources of difference in economic performance are national policies and institutions (Acemoglu 2009). Some recent studies have suggested that domestic institutions in China and India have resulted in similar misallocations of capital and labor (Hsieh and Klenow 2009) or tend to converge toward efficiency-mandated direction (Bardhan 2012; Keefer 2007; Sinha 2005). Even in terms of political risk, a major concern for foreign firms when venturing abroad, there is no significant difference between the two countries.²

This article proposes a causal linkage between domestic institutions and FDI distribution in China and India. I argue that domestic labor mobility is a proximate cause of FDI pattern and development paths. For an unskilled labor-abundant economy, high labor

² Political risk rating sources include the World Bank's Ease of Doing Business Index, Political and Economic Risk Consultancy, Euromoney Country Risk, and PRS Group's International Country Risk Guide.

mobility increases the supply of labor and strengthens comparative advantage in labor-intensive production whereas low labor mobility does the opposite. China's high labor mobility thus motivates foreign firms to concentrate in labor-intensive manufacturing in pursuit of scale economies. India's low labor mobility motivates foreign firms to move away from unskilled-labor-intensive manufacturing to modern services where the demand for skilled labor is relatively high.

What accounts for the differences in labor mobility? I argue that they are partly shaped by domestic institutional arrangements, particularly a set of regulations governing labor and land markets. China's labor regulations, by raising firms' flexibility in hiring and firing while undermining workers' job security and collective bargaining power, enhance occupational labor mobility. India's labor regulations, by constraining firms' flexibility in hiring and firing while strengthening formal workers' collective bargaining power, impede labor mobility between formal and informal sectors. China's land regulations, by facilitating urban expansion and raising rural–urban inequality, enhance spatial labor mobility. India's land regulations, by constraining urban expansion and rural–urban inequality, reduce spatial labor mobility.

It is undisputable that these micro institutional arrangements are shaped by the allocation of political power and institutional constraints at the national level. Cross-national evidence suggests that a country's level of democracy is a positively correlated with labor rights protection (Mosley and Uno 2007). In particular, leftist governments are more likely to protect collective labor rights to benefit their political constituencies (Mosley 2008). Similarly, democracies tend to protect property rights to a greater extent than autocracies (Leblang 1996; Knutsen 2011), suggesting that expropriation of land rights is subject to more institutional checks in the former, but of the rulers' time horizon is also important as new democracies face

more difficulties in protecting property rights than longstanding autocracies (Clague et al. 1996).

Despite the endogenous feature of political regimes and domestic institutions, there are two major merits to move beyond the debates built on the distinctions between democracy and autocracy. First, considerable variation in economic performance for countries with the same type of political regime suggests that micro institutional arrangements are not all attributable to macro political institutions. History, initial geographic conditions, and factor endowments also shape economic institutions (Engerman and Sokoloff 2012). Botero et al. (2004) find that the effects of a country's legal origin (civil law vs. common law) on its labor market institutions are larger than those of political institutions. The processes which helped to shape the historical development of land rights have salient impact on today's land institutions in many developing countries (Feder and Feeny 1991).

Second, institutions can affect economic performance through a variety of proximate causes. Economists normally treat property rights and their effect on investment as central issues in the political economy of development (e.g., North and Weingast 1989; North 1990; Besley 1995; Barro 1996; Acemoglu and Robinson 2005). This causal inference is also crucial in the studies on politics of FDI (e.g., Knack and Keefer 1995; Henisz 2000; Li and Resnick 2003; Jensen 2006). Focusing on one proximate cause, however, makes it difficult not only to mitigate the endogeneity issue theoretically, but also draw concrete implications empirically.

What sets this article apart from other studies is its emphasis on the institutional effects on labor mobility that subsequently shape investors' behaviors. Under these institutional arrangements, the interplay among governments, firms, and workers alters a country's natural comparative advantage and shapes international specialization. Understanding these proximate

causes can potentially help the government set more effective reform agendas to achieve better governance outcomes.

Domestic Institutions, Labor Mobility, and FDI

In general, foreign firms can employ two major strategies for organizing multinational production: cost-driven vertical integration and market-driven horizontal integration (Markusen 2002). They are more likely to engage in the former when international factor-price differences are large, or the latter when the local market is potentially large. In countries with abundant unskilled labor and less developed domestic market, one would predict that FDI flows into labor-intensive manufacturing with much of the final output shipped back home or to third countries, but foreign firms sometimes adopt very different investment strategies in developing countries with similar factor endowment.

Arthur Lewis's (1954) seminar work on labor market dualism provides an important insight. Emphasizing that an unlimited supply of labor cannot be taken for granted, even in countries with surplus labor, Lewis argued that underdevelopment is a consequence of fragmented labor market between rural and urban areas. Surplus workers could be important assets for economic development only if they move freely in an integrated labor market.

Later studies suggest that developing countries' labor market is more fragmented than Lewis's labor market dualism. The duality within the urban economy leads to at least three segments of employment—an urban formal sector, an urban informal sector, and a rural agricultural sector (Fields 1975). The integration of labor market depends on the mobility of workers between different segments. The value of labor resources, therefore, should be

assessed not only based on the abundance of labor endowment but also on the basis of labor mobility.

How does labor mobility affect foreign firms' investment strategies? First, low labor mobility solidifies segmentation of labor market and thus reduces the supply of unskilled workers. This will discourage investment in manufacturing, particularly unskilled labor-intensive manufacturing, because foreign firms will be less likely to reap the benefits of scale economies and adjust production capacity during economic downturn. Second, low labor mobility drives up the unskilled labor cost relative to skilled labor cost, which may motivate foreign firms to engage in skilled labor-intensive services by offshoring white-collar services to developing countries (Markusen 2005). Third, by raising labor cost at home, low labor mobility reduces the labor cost differences between home and host countries, making it less attractive for foreign firms to adopt the vertical strategy to exploit factor cost advantage in host countries. Therefore, in an unskilled-labor-abundant economy with low labor mobility, foreign firms are likely to invest in capital-intensive manufacturing, skilled-labor-intensive services, or adopt the horizontal strategy of production.

What factors affect labor mobility? In the trade literature, labor mobility is primarily treated as an exogenous factor that affects the formation of trade policy or political coalitions on liberalization and protection (Magee 1971; Rogowski 1989; Hiscox 2001). In recent years, a new body of work on "varieties of capitalism" (VoC) suggests that labor mobility is endogenous to domestic institutions and policies in advanced countries (Hall and Soskice 2001). In coordinated market economies, where job security is secured by labor regulations, workers have more incentive to invest in firm-specific skills and have lower mobility. In liberal

market economies, where labor regulations offer less protection for job security, workers are motivated to invest in general skills transferable across firms and have higher mobility.

Given that developing countries have more segmented labor markets, labor institutions may play a more important role in affecting labor mobility, not just across industries, but also between formal and informal sectors.

On the one hand, labor institutions that offer weak protection on labor rights and job security will motivate workers to use exit options, but how likely workers might quit also depends on their collective bargaining power. Hirschman (1970) suggests that when workers have a voice institution for expressing discontent or negotiating better labor contracts, they should use the exit option less frequently and thus exhibits higher job tenure with firms. Treating trade unions as such voice institutions, Freeman (1980) finds that trade unionism is associated with significant reductions in job turnover. Therefore, in the absence of collective bargaining arrangement, workers who feel themselves unfairly treated or desire better working conditions may quit.

On the one hand, labor institutions shape firms' incentives on hiring and firing. Mosley (2011) argues that directly owned multinational production will generate pressures for the protection of collective labor rights whereas arm's-length production relationships have negative consequences on labor rights, indicating that the reverse causality may also hold as greater protection of labor rights will encourage market-driven horizontal MNCs and discourage cost-driven vertical MNCs. Christensen and Wibbels (2014) highlight the irony between labor standard and labor protection. Higher labor standards intended to protect workers may end up hurting workers, particularly unskilled workers. In the Indian context, scholars find that pro-worker local labor regulations had negative impact on output and

employment in formal industrial sector, particularly in labor-intensive industries (Besley and Burgess 2004; Ahsan and Pages 2009).

While labor institutions mainly affect occupational labor mobility, i.e., mobility between formal and informal sectors as well as inter-industry, land institutions have more profound impact on spatial labor mobility, i.e., mobility between rural and urban areas, through two possible mechanisms. First, land tenure arrangements might be associated with farmer's migration decision (Besley 1995, Mullan et al. 2011). In countries where the government has strong authority of land acquisition, the risk of land expropriation is high, and farmers will have little incentive to invest in their land and thus more likely to migrate. In countries where the government's land authority is more constrained, the risk of land expropriation is low, and peasants will have more incentive to invest in their land and thus less likely to migrate.

Second, compensation for land acquisition affects rural–urban income distribution, creating a pull effect that induces rural-to-urban migration. Rising rural-urban inequality is a consequence of rapid industrialization (e.g., Kuznets 1955; Lucas 1997). Normally, it is increasing returns to scale that drive land conversion and enable industry to concentrate geographically (Krugman 1991), but inadequate compensation for land acquisition can also create incentives for excessively rapid industrialization (Ghatak and Mookherjee 2014). This may motivate workers to migrate from low-paid agriculture jobs to higher-paid industrial jobs, as shown in the U.S. structural transformation (Caselli and Coleman 2001). Therefore, rising rural–urban gaps should be associated with higher spatial labor mobility.

Comparison of Labor Mobility in China and India

We compare labor mobility in China and India from three aspects: rural-urban, formal-informal, and inter-industry mobility.

The speed of urbanization is a simple way to measure rural-urban mobility. Despite India's slightly higher urbanization ratio (22%) than China's (19%) in 1978, India had fallen far behind China by 2014. Its urban population had increases to 32 percent of total population whereas China's urban population now accounts for 54 percent of total population (World Bank 2015).³

To be sure, it would be misleading to assume that urbanization is caused solely by rural-to-urban migration. Natural population growth and administrative reclassification also contribute to urbanization (Lucas 1997). Natural population growth has played a much larger role in India's urbanization than China's, thanks to India's much higher fertility rate.⁴ In contrast, migration accounted for only 21 percent of India's urban growth in recent decades whereas migrant workers contributed nearly half of China's urban employment in 2007 (Chandrasekhar and Sharma 2015; Cai et al. 2009).

The second aspect is labor mobility between formal and informal employment. In India, informal workers are officially defined as "unorganized workers," including both those working in the informal sector and workers in the formal sector who do not receive

³ There are two different ways to measure the Chinese urban population. One is by *hukou* whereby only people with official urban registration status are included. The other is by residence—an individual is considered an urban resident if he or she has resided in the urban area for more than six months. China's official definition of urban population, on which the World Bank data are based, excludes migrants and those lacking urban *hukou*.

⁴ In 2010, India's total fertility rate in urban areas is 1.9 births per woman (Ministry of Home Affairs 2011) and China's is 0.88 births per woman (Fu et al. 2013).

employment and social security benefits from their employers.⁵ Informal workers, accounting for 94 percent of total employment, dominate the Indian labor market (Ministry of Labor and Employment 2010). The employment structure in manufacturing is similar. As shown in Table 2, four out of every five Indian manufacturing workers are regarded as informal employment. The consistent dominance of informal employment indicates that India has a highly segmented manufacturing labor market with limited mobility between the formal and informal sectors.

In contrast to the overwhelming informality of labor market in India, most of the Chinese urban manufacturing employment has been formal in nature until recently. Informal workers account for a much smaller yet growing share in total employment, thanks to massive downsizing of SOEs, rapid expansion of private firms, and mass migration.

China does not have an official definition of informal employment, so we use two indicators to roughly measure the size of informal manufacturing workers. The first one defines informal manufacturing employment as those employed in urban private enterprise and *getihu* (self-employed individuals). In China's official statistics, this part of manufacturing workers is excluded from urban manufacturing employment, an indication of its informality. Using this narrow definition, the informal manufacturing employment ratio increased from 2 percent in 1989 to 37 percent in 2010.⁶ The second indicator includes manufacturing workers employed not only in urban private enterprise and *getihu* but also in township and village

⁵ India's unorganized manufacturing sector consists of manufacturing units employing fewer than ten workers and using power or fewer than twenty workers and not using power. The data on unorganized sector are mainly from National Sample Survey Organization (NSSO).

⁶ The narrowly defined informal employment ratio is similar to the estimation by Park and Cai (2011). Using survey data, they find that China's urban informal workers increased from 9 percent in 1995 to 36 percent of total urban employment in 2005.

enterprises (TVEs).⁷ Using this broader definition, the informal employment ratio increased from 52 percent in 1989 to 71 percent in 2010. Although the two ratios differ noticeably in the magnitude, they both indicate a dramatic process of informality and rising mobility in the labor market.

[Table 2 here]

The third aspect is inter-industry labor mobility. Based on the assumption that labor mobility is negatively associated with inter-industry wage differences, we use inter-industry wage differentials as an indicator of inter-industry labor mobility (Kruger and Summers 1988, Hiscox 2001). We first calculate the average wages for each of the two-digit manufacturing categories as total compensations divided by total employment.⁸ Then we calculate the coefficients of the variations in the industrial average wages. As shown in Figure 2, India's wage differentials are consistently higher than China's, an indication of lower inter-industry labor mobility.

[Figure 2 here]

In short, China's large-scale rural–urban migration, rapidly rising informality of manufacturing employment, and smaller inter-industry wage differentials indicate that Chinese workers have higher mobility than their Indian counterparts.

⁷ Prior to 2003, the National Statistical Yearbooks reported the total manufacturing employment, but Banister and Cook (2011) argue that the number is under-reported as TVE employment was not completely included in the rural manufacturing employment.

⁸ Note that China and India have different industrial classifications. China's industrial classification consists of 29 two-digit manufacturing categories whereas India's National Industrial Classification (NIC 2004) includes 24 two-digit manufacturing categories.

Different labor mobility might help explain the trends of manufacturing labor input in China and India. Normally, labor-intensive manufacturing requires higher proportion of labor input relative to capital input. As shown in Figure 3, labor input as share of total manufacturing output was similar in both countries in 2007, but the changes over time are surprisingly different. The share of labor input decreased by 30 percent between 1998 and 2007 in India whereas increased by 2 percent between 1999 and 2009 in China.⁹

[Figure 3 here]

These different trends appear puzzling for two reasons. First, the demographic dynamics suggest that India has a growing labor pool because India's share of the working-age population will continue to increase while China's has begun to decline.¹⁰ Second, labor cost is not only higher but rose faster in China. India's hourly manufacturing labor cost increased by 72 percent (from \$0.68 to \$1.17) between 1999 and 2007 whereas China's hourly manufacturing labor cost increased by 139 percent (from \$0.57 to \$1.36) between 2002 and 2008.¹¹ Higher and rapidly rising labor costs in China would impose greater pressure on firms in labor-intensive industries and induce them to increase relative capital input. Thus, other

⁹ Alternatively, when we use the ratio of total labor compensation to total fixed capital (W/K) to measure labor intensity, the differences are even larger. China's labor intensity increased by 110 percent between 1999 and 2009 whereas India's declined by 8 percent between 1998 and 2007. However, it is more difficult to adjust the measure for comparability because of different definitions of fixed capital in China and India.

¹⁰ In 1980 China and India had similar percentage of elderly population (5% vs. 4%). By 2030, China's elderly population will rise to 20 percent whereas India's elderly will only increase to 8 percent (Davis 2014).

¹¹ The estimate for China includes manufacturing workers in urban units as well as township and village enterprises (Bureau of Labor Statistics 2011). The estimate for India includes only formal manufacturing workers (Sincavage et al. 2010).

things being equal, manufacturing firms should be more willing to reduce the ratio of labor input in China than in India.

This discrepancy between the prediction and reality indicates that the difference in labor mobility might be the game changer. Low labor mobility makes it difficult for manufacturing firms to tap on India's large labor pool and capitalize its cost advantage. In contrast, high labor mobility has preserved, to some extent, China's comparative advantage in labor-intensive manufacturing despite the shrinking labor pool and rising labor cost.

Domestic Institutions and Labor Mobility

Why is labor mobility so high in China but so low in India? Labor mobility, after all, does not occur by accident. It can be affected by a variety of institutional and policy factors. Both countries have entrenched institutions that create social fragmentation and restrict labor mobility in similar ways. In India, the caste system, by imposing social restrictions and providing mutual insurance services, is a major impediment to social mobility (Munshi and Rosenzweig 2006, 2009). In China, the operation of *hukou* (household registration) system, which designates a person's legal place of residence and socioeconomic eligibility based on the mother's registration status, has impeded both spatial and occupational labor mobility (Wu and Treiman 2007; Chan and Zhang 1999).

Despite their different social and political origins, the caste and *hukou* systems have played a similar role in creating social segmentation and inequality in both countries. Ironically, the disparities might generate a strong effect for the surplus rural workers to be absorbed into the expanding industrial sector, thus creating a low-cost advantage for the manufacturing sector

(Chan 2010). However, the institutions governing labor and land markets play quite different roles in shaping this transformation process.

Labor Institutions

Since the mid-1980s, China's labor relations have experienced a fundamental transformation toward flexibility, insecurity, and managerial control of worker organization (Gallagher 2005). The introduction of a market-oriented labor contract system was particularly important in this transformation. It not only ended the socialist life-long employment system, but also dramatically curtailed workers' rights to welfare entitlements. In order to create a policy environment conducive to FDI, the Chinese government drew a clear distinction between state-owned enterprises (SOEs) and foreign firms when regulating labor relations. Foreign firms were granted a considerable degree of autonomy and flexibility in using labor contracts. Both the Equity Joint Venture Law and the Cooperative Joint Venture Law allow "the employment, dismissal, remuneration, welfare, labor protection and labor insurance of the staff members and workers to be specified in contracts concluded in accordance with law."¹²

The 1994 Labor Law states that employers should sign labor contracts with their employees, but it was poorly enforced. By 2007, only half of firms had signed labor contracts with their employees, of which 60–70 percent were short-term contracts (Friedman and Lee 2010). Moreover, the Labor Law gives employers a great deal of discretionary power to make layoffs and terminate labor contracts.

Shortly after the passage of the Labor Law, the Chinese government tried to introduce a more effective labor contract bill to improve labor relations. It immediately sparked debate on the trade-off between economic growth, which was driven largely by intensive use of low-cost

¹² Article 6 of the 1979 Equity Joint Venture Law and Article 13 of the 1988 Cooperative Joint Venture Law.

labor, and worker protection, which is crucial for political and social stability. With the prevalence of capitalist interest, the bill was tabled for ten years and did not pass until 2007, after four rounds of intense deliberations (Wang 2007).

The Labor Contract Law initiated some important changes toward greater worker protection, including mandating labor contracts for all employees, requiring a long-term contract for employee who had worked for an employer for more than ten years or two consecutive fixed terms, and strengthening the role of unions and collective bargaining (Becker and Elfstrom 2010). The rates of signed labor contracts spiked, ranging from 92 percent for foreign firms to 56 percent for domestic private firms (Xu 2011). But criticisms abound on the law's negative impact on China's competitive edge, including the remark made by Finance Minister Lou Jiwei (*South China Morning Post* 2015).

India's labor regulations, concurrently listed by the central and state governments, are more complex and restrictive. The central piece is the Industrial Dispute Act (IDA) 1947. Chapter V-B of the IDA, which requires firms employing 100 or more workers to obtain government permission for layoffs, is regarded as one of the strictest labor rules in the world (OECD 2011).

The Indian government, both under the BJP-led coalition (1998–2004) and the Congress-led United Progressive Alliance (2004–2014), has sought to relax labor regulations. In 2001, the central government proposed an amendment that would lift the layoff permission bar from 100 to 1,000 workers. Although the government conducted “reform by stealth”—a strategy to avoid direct political conflict by pursuing piecemeal policy change—trade unions in the formal sector, which clearly preferred job preservation to job creation, strongly opposed it (Jenkins 2004).

Given the lack of broad support to overhaul the rigid labor regulations, the Indian government enacted the Special Economic Zone (SEZ) Act in 2005, granting more flexibility in regulatory implementation within SEZs primarily through two provisions (Singh 2009). First, it classifies SEZs as “public utilities” to curtail workers’ ability to organize strikes. Second, it delegates the implementation authority to the pro-capital development commissioner, not the pro-worker labor commissioner, in keeping with the general objective of creating “single-window clearance.”

Accompanying rapid economic growth are increasingly contentious labor relations in both countries, but the frequency and scale of collective labor protests are profoundly different. China’s official records of labor disputes, including both individual and collective disputes, increased more than fourteen times between 1996 and 2009, but the proportion of collective labor disputes declined from 6.5 to 2 percent (*China Labor Statistics Yearbook 2010*, 417–18). As shown in Figure 4, despite a steady growth since 1986, the number of workers involved in collective labor disputes in China is still significantly lower than India’s. Between 1996 and 2009, India had about 10,000 strikes and lockouts involving 20 million workers whereas China had over 160,000 collective labor disputes involving 4.5 million workers. On average, each collective labor dispute involved more than 2,000 workers in India but only 28 workers in China. Even if we take into account of the potentially systematic underreporting of large labor protests in China, the average scale of collective labor disputes is still significantly larger in India.

[Figure 4 here]

In China, the relative scarcity of collective labor disputes can be partly attributed to the absence of independent trade unions. Chinese workers are officially represented by the All-

China Federation of Trade Union (ACFTU). As the only legal trade union in China, ACFTU and its local branches serve as a “society stabilizer,” an institutional instrument that helps the government achieve policy goals by maintaining stable labor relations (Qi 2010). Despite its nongovernmental label, ACFTU is a hierarchical bureaucratic organization governed by politically appointed representatives. Its priority is to ensure government oversight of worker organizations, which has essentially disabled workers’ collective bargaining power (Gallagher 2005). Although workers have recently been allowed some rights, such as choosing their own union representatives or creating “employee welfare committees,” establishing independent unions is still far beyond the reach (Bradsher 2010).

While China’s state-controlled trade union undermines workers’ collective bargaining power, India’s trade unions strengths the collective power for formal workers. The Indian Trade Unions Act (1926) set a low bar for the formation of trade union: seven or more members can register a trade union. A legislative amendment in 2001 raised the bar of union registration to 10 percent or 100 workers. India has twelve central trade union organizations representing more than 6,800 regional trade unions (Ahn 2010, 73). Active but uncoordinated engagement of trade unions has resulted in numerous large-scale labor disputes.

In short, China’s lax labor contract system and its weak implementation increase the flexibility of labor market. Firms are motivated to hire a large number of short-term low-cost migrant workers. In addition, lack of job security and collective bargaining power make workers highly responsive to job opportunities and wage changes. Therefore, China’s pro-capital labor regulations and state-controlled trade unions have facilitated occupational labor mobility.

India's restrictive labor regulations increase the rigidity of labor market. In response, Firms may reduce the demand for unskilled workers by keeping the firm size small or investing in capital-intensive manufacturing or services. With the support of powerful trade unions, highly protected formal workers are capable of resisting subcontracting their jobs to informal workers. Therefore, India's pro-worker labor regulations and powerful trade unions have constrained occupational labor mobility.

Land Institutions

In both countries, the urbanization process has been accompanied by mass land acquisition. Although the data of land acquisition are incomplete and largely incompatible, a rough comparison suggests that the magnitude of land acquisition is much larger in China. Between 2000 and 2008, the Chinese government converted 1.7 million hectares of agricultural land for urban construction.¹³ An additional 450,000 hectares of agricultural land have been converted illegally (World Bank 2012). In contrast, India only transferred around 440,000 hectares of forestland for nonforest purposes during this period, less than half of which may have been used for urban construction.¹⁴ In other words, China converted ten times of agricultural land for urban and industrial purposes than India did.

Underneath the different scales of land acquisitions are distinct institutional frameworks that affect the security of rural land tenure system. China's land system has two sets of owners: urban land is owned by the state; rural land is collectively owned by peasants. Although peasants have nominal ownership over collective land, they actually possess only limited land-

¹³ The number is calculated based on statistical information from Ministry of Land and Resources Annual Reports.

¹⁴ The Indian Ministry of Rural Development distinguishes the nonforest purposes of division into different categories. Encroachment (32%) and defense use (11%) were the two major categories of the total diverted forestland (Ministry of Rural Development 2009).

use rights for a fixed term of 30 years. In 2008, the Chinese government extended the land contract tenure from 30 years to an unspecified “long term,” which might be interpreted as permanent tenure. Despite the extended land contracts, peasants’ land tenure is far from fully secure because their land use rights are subject to local officials’ discretion in land reallocation (Wang et al. 2011).

The government’s execution of eminent domain authority further undermines the security of rural land tenure. Although the Constitution stipulates that land acquisition shall be carried out to serve public interests, it does not clearly define what “public interests” are. Nor does it specify whether such authority can also apply to nonpublic-interest land acquisition. The ambiguity of “public interests” gave the government a great deal of discretionary authority to expropriate land for urban development. The 1988 Land Administrative Law, for example, requires that all land for nonagricultural use, regardless of whether it will serve public interests or not, must be acquired by local government and subsequently leased to commercial users.

Land acquisition is one of the most contentious issues in China’s central–local relations. The 1994 tax reform strengthened the central government’s revenue capacity while leaving local governments extensive expenditure assignments. As a compensation, Beijing allowed local governments to keep all land sales revenues under their extra-budgetary accounts, which were essentially under the discretion of local governments with little supervision.¹⁵ The central government did have the authority to oversee and approve land acquisition decisions made by local governments (Ho and Lin 2003), but local governments can always manipulate land

¹⁵ Starting in 2007, local governments were required to separate the earmarked government fund, a fiscal account that mainly consists of land sales revenue, from the extra-budgetary account.

conversion to avoid central scrutiny.¹⁶

The decentralization of land governance and fiscal arrangements give local governments strong incentives to exploit the land as a major source of revenue, resulting a large-scale land acquisition and conversion. In 2007, land-related revenue accounted for 20 percent of total local revenue at the provincial level (Nitikin et al. 2012). At the county level, land revenue contributed nearly 80 percent of extra-budgetary revenue (Kung and Chen 2013).

In India, the principle framework for acquisition of private land was originated from the Land Acquisition Act of 1894 (LAA), a colonial law that has remained in force until recently. The LAA was amended in 1962 to allow the government to acquire land for private firms as long as the acquisition could be justified for public purpose. The amendment granted the government more discretionary authority in land acquisition, but it has become increasingly controversial, particularly since the passage of the SEZ Act in 2005. The public severely criticized the SEZ policy for its negative impact on displacement and compensation (Aggarwal 2006).

With the initiation of the SEZ policy, the government has tried to further amend the LAA in order to facilitate land acquisition for industrial development, but the rapid growth of SEZs backfired. Large-scale acquisitions in Nandigram and Singur, West Bengal, triggered violent protests in 2007. After lengthy debate on land acquisition and compensation, the Indian Parliament finally passed “the Rights for Fair Compensation and Transparency in Land Acquisition, Resettlement, and Rehabilitation Act” (LARR) to replace the century-old LAA in 2013. The LARR redefines “public purpose” more specifically as land acquired for defense

¹⁶ For example, many local governments acquired agricultural land by signing long-term leases with farmers instead of expropriating land, a practice that did not require central approval (Xinhua News Agency 2007).

purposes, infrastructure projects, or any project useful to the general public. It also has a consent clause that land acquisition by private companies and public-private-partnership (PPP) needs consent of 80 percent and 70 percent of affected families respectively.

The second driver of spatial labor mobility is growing rural-urban inequality, which might create a pull effect for rural-to-urban migration. Numerous studies have documented that China's rapid urban expansion was accompanied by rising rural-urban income disparities (White 2010; Park 2008; Gustafsson et al. 2008). In contrast, there is strong, although not definitive, evidence that India's growth since the early 1980s has been marked by narrowing of rural-urban gaps and relatively small rural-to-urban migration (Hnatkovska and Lahiri 2013).¹⁷

The regulations on land compensation might have played a role in explaining the different trends in rural-urban inequality. China's Land Administration Law not only prohibits peasants from making a private transfer of land-use rights for nonagricultural use, but also exclude them from negotiating marketable compensation for land acquisition. The compensation for rural land acquisition is based on a fixed-fee formula significantly below market value.¹⁸ These specific formulas enable the government to benefit enormously from

¹⁷ It is difficult to directly compare inequality in China and India because of different statistical approaches.

China's inequality data are based on income whereas India's data are based on consumption expenditure (Bardhan 2012).

¹⁸ The total compensation consists of three parts: land compensation, resettlement subsidy, and improvement and crop compensation. Land compensation is about six to ten times the value of the average production of the land in the three years prior to acquisition. Resettlement subsidy for each person is about four to six times the value of the average production of the land. Compensation for improvements to land and crops is left to the discretion of local governments, which normally cannot exceed thirty times the value of derived land products (Land Administration Law, Article 47).

land conversions while giving peasants little leverage to negotiate better compensation for themselves. Yu Jianrong, a researcher on rural China, estimates that the total land compensation payments peasants received between 1990 and 2010 were 2 trillion yuan less than market value (*Xin Jing Bao* 2010). In 2012, the National People's Congress proposed an amendment to the Land Administrative Law that will significantly increase compensation for land acquisitions, but this amendment has not been approved (Xinhua 2012).

In India, the compensation for land acquisitions is also a bone of contention. The LAA entitled the affected landowners to the market value of their land and properties, but the market price is often suppressed due to the regulatory restrictions on the change in agricultural land use. Landowners, however, have the legal rights to challenge the government in court over the inadequacy of compensation. Most of the litigation cases eventually led to higher compensation awarded by the court (Singh 2012). To fundamentally address this contentious issue, the LARR dramatically increases both the number of people who are entitled to compensation and the amount they should receive. Affected families include not only displaced landowners, but also landless laborers whose livelihoods depend on the land being acquired. In rural areas, compensation is four times the market value of the land; in urban areas, compensation is twice the market value. Affected families are also entitled to a package of resettlement and rehabilitation apart from the compensation.

In short, China and India have different institutional arrangements in land acquisitions and compensation. In China, weak constraints on land acquisitions enable the government to exert their eminent domain authority for industrial development, driving peasants out of the rural area. Low compensation for land acquisitions limits peasants' ability for income maximization and thus increases rural–urban inequality, inducing peasants to pursue better job

opportunities in the urban area. In India, the governments are subject to more careful scrutiny in land acquisitions. Market-based compensation for land acquisitions plays a role in alleviating the rural-urban inequality, reducing peasants' incentives for migration. As a result, rural-urban labor mobility is considerably lower in India.

Labor Mobility and Foreign Firms' Investment Strategies

Difference in labor mobility, by affecting the integration of labor market and the supply of unskilled workers, shapes foreign firms' investment strategies in China and India. A prominent characteristic of India's manufacturing sector is the extremely small size of firms. About 84 percent of manufacturing employment is in small firms with less than 50 employees whereas only 10 percent is in large firms with more than 200 employees. In contrast, more than half of manufacturing employment is in large firms in China (Hasan and Jandoc 2012). Given the much smaller size of manufacturing firms, India reaped much smaller gains from scale economies than China did. Between 1993 and 2004, China's gains in total factor productivity in the industry sector averaged a 6 percent per year whereas India's annual labor productivity gains were only 1 percent (Bosworth and Collins 2008).

Foreign firms' goal is not just to exploit scale economies, but also to minimize the risk associated with expanding production. In pursuit of labor market flexibility, foreign firms often subcontract their productions from regular workers to temporary workers so that they can easily downsize during economic downturn.

The textile industry is a good example to illustrate how labor mobility affects FDI patterns. For both countries, the textile industry, as an internationally competitive industry, is a

significant contributor to national economy and employment,¹⁹ but it has quite different performances in attracting FDI. Foreign firms have a sizeable presence in China's textile industry, accounting for 22 percent of employment, 25 percent of industrial output, and 50 percent of total export in 2004 (Wu and Gu 2014). In contrast, India's textile industry only received 0.9 percent of FDI inflows between 1991 and 2008 (Ministry of Textiles 2009). Foreign participation is limited to production partnership and technology transfer agreements (Hsieh 2012).

As a seasonal industry, the textile industry normally relies on subcontracting to increase production flexibility. This arrangement, however, is more difficult to implement in India because the textile industry has the most politically powerful trade unions formed by formal workers. Formal workers not only resisted expanding trade unions to informal workers, but also opposed firms' decisions of hiring contractual workers.²⁰ As a consequence, only a small portion of informal workers are employed to produce for the competitive international market while the vast majority work for the less competitive domestic market (Tilly et al. 2013).

The subcontracting arrangement in the Chinese textile industry is widespread and highly integrated. There are up to four tiers of manufacturers along the supply chain with large enterprises on the top and home-based small workshops at the bottom. While many formal workers in large enterprises have signed fixed-term labor contracts with their employers, the

¹⁹ India's textile industry contributes 14% of industrial production, employs 45 million people, and accounts for 12% of total exports (Ministry of Textile 2014). China's textile industry contributes 10 percent of industrial production, employs 18 million people, and accounts for 18% of total exports.

²⁰ Fifty-three percent of formal workers are unionized, whereas only 2 percent of informal workers are union members (Ahn 2010).

vast majority of informal workers in small workshops are excluded from the protection of labor contracts, facilitating a huge yet highly flexible labor market (Tilly et al. 2013). Therefore, even with the rapid rise in labor costs, foreign firms still find that investing in labor-intensive manufacturing in China has a competitive edge in scaling up and down for production.

Conclusion

This article begins with an intriguing empirical puzzle: Why did China and India, despite their similar natural factor endowments and growth trajectories, attract different types of FDI and exhibit distinct development paths? Political regimes, by defining the range of role the state is capable of playing, mold the governance outcomes in India and China differently: policy is likely to be more stable in India where the institutional checks are strong, but radical policy initiatives are more likely to succeed in China where the institutional checks are weak (Zheng 2014). Despite their distinct yet invariable types of political regime, the governments of both countries have launched similar economic reforms to integrate into the global market. A simple assessment of political regimes or natural factor endowments, however, cannot tell us who will have a comparative advantage in manufacturing or services. Thus we seek a basis of comparison more deeply rooted in the micro-level institutions that are more complex and nuanced than what the democracy–autocracy dichotomy would suggest.

This article has proposed a causal mechanism on how micro-level institutions shape FDI patterns through their effects on labor mobility. First, China’s pro-capital labor regulations and state-controlled trade unions weaken labor protection and collective bargaining power, which facilitates occupational labor mobility. India’s restrictive labor regulations and powerful trade unions empower formal workers and hamper mobility between formal and informal

sectors. Second, China's land regulations grant the government a great discretionary authority to exert eminent domain, leading to rapid urban expansion and rising rural–urban inequality. India's land regulations set stronger constraints on the government's eminent domain authority, leading to a slower pace of urbanization and narrowing rural-urban inequality. Therefore, rural-to-urban labor mobility is also higher in China than in India.

Subsequently, high labor mobility facilitates integration of labor market and increases the supply of unskilled workers in China, which attracts foreign firms to concentrate in labor-intensive manufacturing. Low labor mobility solidifies segmentation of labor market and reduces the supply of unskilled workers in India, which motivates foreign firms to invest in the services sector where the demand for skilled labor is relatively high.

While this article indicates that labor mobility can be a source of “constructed comparative advantage” (Evans 1995), it provides no normative implications about whether domestic institutions that enhance or reduce labor mobility are more desirable. Flexibility gains for firms may be flexibility losses for workers. India is criticized for its stringent labor and land regulations that distort incentives and lower firm efficiency, but China is also criticized for its poor labor protections that raise social tensions and undermine the political foundation of economic development.

It is important to note that the descriptive data analysis does not make deterministic predictions about the role of labor mobility in FDI patterns, nor do I claim that domestic institutions explain all, or most, of their various paths of development. But exploring the underlying mechanisms suggests a new approach for bridging the gap between macro-political institutions and micro-economic activities. As more developing countries have become high-growth emerging markets, the question is no longer on what institutions are conducive to

growth. A more appealing question is on what institutions determine the patterns and sustainability of growth. Thus, the framework outlined here could be a useful tool for policy analysis in other developing countries and has broad implications for the political regimes and governance literature.

Bibliography

- Acemoglu, Daron. 2009. *Introduction to Modern Economic Growth*. Princeton: Princeton University Press.
- Acemoglu, Daron, and Simon Johnson. 2005. "Unbundling institutions," *Journal of Political Economy*, 113(5): 949-995.
- Aggarwal, Aradhna. 2006. "Special economic zones: revisiting the policy debate." *Economic and Political Weekly*, November 4: 4533-36.
- Ahn, Pong-Sul. 2010. *The Growth and Decline of Political Unionism in India: the Need for a Paradigm Shift*. International Labor Organization DWT for East and South-East Asia and the Pacific.
- Ahsan, Ahmad, and Pagés, Carmen. 2009. "Are all labor regulations equal? Evidence from Indian manufacturing." *Journal of Comparative Economics*, 37(1): 62-75.
- Asuyama, Yoko. 2012. "Skill distribution and comparative advantage: a comparison of China and India." *World Development*, 40(5): 956-969.
- Banister, Judith and George Cook. 2011. "China's employment and compensation costs in manufacturing through 2008." *Monthly Labor Review*, March. 39-52.
- Bardham, Pranab. 2012. *India and China: Governance Issue and Development*. Princeton: Princeton University Press.
- Barro, Robert. 1996. "Democracy and Growth." *Journal of Economic Growth*, 1(1): 1-27.
- Batra, Amita and Zeba Khan. 2005. "Revealed Comparative Advantage: An Analysis for India and China", *India Council for Research on International Economic Relations (ICRIER) Working Paper*, No. 168. Available at <http://icrier.org/pdf/wp168.pdf>.
- Besley, Timothy. 1995. "Property rights and investment incentives." *Journal of Political Economy*, 103(5): 903-937.
- Besley, Timothy and Robin Burgess. 2004. "Can labor regulation hinder economic performance? Evidence from India," *Quarterly Journal of Economics*, 119(1): 91-134.
- Becker, Jeffrey and Manfred Elfstrom. 2010. "The impact of China's labor contract law on workers," *International Labor Rights Forum*, May 12.
- Bosworth, Barry and Susan Collins. 2008. "Accounting for growth: comparing China and India." *Journal of Economic Perspectives*, 22(1): 45-66.
- Botero, Juan, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei

- Shleifer. 2004. "The Regulation of Labor." *Quarterly Journal of Economics*, 119(4): 1339-1382.
- Bradsher, Keith. 2010. "A labor movement stirs in China." *New York Times*, June 10, 2010.
- Bureau of Labor Statistics. 2011. "International comparison of hourly compensation costs in manufacturing 2010." December 21.
- Cai, Fang, Du Yang, and Wang Meiyuan. 2009. "Migration and labor mobility in China." *UNDP Human Development Research Papers* 2009/09. Available at <http://iple.cass.cn/upload/2012/06/d20120604143959846.pdf>.
- Caselli, Francesco, and Wilbur John Coleman. 2001. "The U.S. Structural Transformation and Regional Convergence: A Reinterpretation." *Journal of Political Economy*, 109(3): 584-616.
- Chan, Kam Wing. 2010. "A China paradox: migrant labor shortage amidst rural labor supply abundance." *Eurasian Geography and Economics*, 51(4): 513-530.
- Chan, Kam Wing and Li Zhang. 1999. "The Hukou system and rural-urban migration in China: processes and changes." *China Quarterly*, 160: 818-855.
- Chandrasekhar, S. and Ajay Sharma. 2015. "Urbanization and Spatial Patterns of Internal Migration in India," *Spatial Demography*, May 2015.
- Christensen, Darin, and Erik Wibbels. 2014. "Labor standards, labor endowments, and the evolution of inequality." *International Studies Quarterly*, 58(2): 362-379.
- Clague, Christopher, Philip Keefer, Stephen Knack, and Mancur Olson. 1996. "Property and contract rights in autocracies and democracies." *Journal of Economic Growth*, 1(2): 243-276.
- Davis, Deborah. 2014. "Demographic challenges for a rising China." *Dædalus, the Journal of the American Academy of Arts and Sciences*, 143(2): 26-38.
- Department of Land Resources of India. 2009. *Report of the Committee on State Agrarian Relations and the Unfinished Task in Land Reform*.
- Engerman, Stanley and Kenneth Sokoloff. 2012. *Economic Development in the Americas since 1500: Endowments and Institutions*. New York: Cambridge University Press.
- Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton: Princeton University Press.

- Feder, Gershon and David Feeny. 1991. "Land Tenure and Property Rights: Theory and Implications for Development Policy." *The World Bank Economic Review*, 5(1): 136-154.
- Fields, Gary. 1975. "Rural-Urban Migration, Urban Unemployment and Underemployment, and Job Search Activity in LDCs." *Journal of Development Economics*, 2: 165-88.
- Freeman, Richard. 1980. "The exit-voice tradeoff in the labor market: unionism, job security, quits, and separations." *Quarterly Journal of Economics*, XCIV (4): 643- 673.
- Friedman, Eli and Ching Kwan Lee. 2010. "Remaking the world of Chinese labor: a 30-year retrospective." *British Journal of Industrial Relations*, 48(3): 507-533.
- Fu, Chonghui, Linghua Zhang, and Yuzhu Li. 2013. "Characteristics of the changes of population fertility in China based on the sixth census." *Tongji Yanjiu* [Statistical Research], 30 (1): 68-75.
- Fukuyama, Francis. 2011. *The Origin of Political Order: From Prehuman Times to the French Revolution*. New York: Farrar, Straus and Giroux.
- Gallagher, Mary. 2005. *Contagious Capitalism: Globalization and the Politics of Labor in China*. Princeton: Princeton University Press.
- Ghatak, Maitreesh and Dilip Mookherjee. 2014. "Land acquisition for industrialization and compensation of displaced farmers." *Journal of Public Economics*, 110: 303-312.
- Gustafsson, Bjorn, Shi Li and Terry Sicular. 2008. *Inequality and Public Policy in China*. New York: Cambridge University Press.
- Hall, Peter and David Soskice. 2001. *Varieties of Capitalism: The Institutional Foundation of Comparative Advantage*. New York: Oxford University Press.
- Hasan, Rana, and Karl Robert Jandoc. 2012. "Labor Regulations and the Firm Size Distribution in Indian Manufacturing," *Columbia Program on Indian Economic Policies Working Paper* No. 2012-3.
- Henisz, Witold. 2000. "The Institutional Environment for Multinational Investment." *Journal of Law, Economics, and Organization*, 16: 334-64.
- Hirschman, Albert. 1970. *Exit, Voice, and Loyalty*. Cambridge: Harvard University Press.
- Hiscox, Michael. 2001. "Class versus Industry Cleavages: Inter-Industry Factor Mobility and the Politics of Trade", *International Organization*, 55(1): 1-46.
- Hnatkovska, Viktoria and Amartya Lahiri. 2013. "The rural-urban divide in India." *International Growth Centre Working Paper*, February. London School of Economics

and Political Science.

- Ho, Samuel, and George Lin. 2003. "Emerging land market in rural and urban China: policies and practices." *The China Quarterly*, 175, October: 681-707.
- Hseuh, Roselyn. 2012. "China and India in the age of globalization: sectoral variation in postliberalization reregulation." *Comparative Political Studies*, 32-62.
- Hsieh, Chang-Tai and Peter Klenow. 2009. "Misallocation and manufacturing TFP in China and India." *Quarterly Journal of Economics*, CXXIV(4): 1403-1448.
- International Labor Organization. 2012. "Statistical update on employment in the informal economy." Department of Statistics, June. Available at http://laborsta.ilo.org/applv8/data/INFORMAL_ECONOMY/2012-06-Statistical%20update%20-%20v2.pdf.
- International Trade Centre. 2013. Investment Map, available at <http://www.investmentmap.org/competitorCountry.aspx>.
- Jenkins, Rob. 2004. "Labor policy and the second generation of economic reforms in India." *India Review*, 3(4): 333-364.
- Jensen, Nathan. 2006. *Nation-States and the Multinational Corporation: A Political Economy of Foreign Direct Investment*. Princeton: Princeton University Press.
- Keefer, Philip. 2007. "Governance and economic growth in China and India," in *Dancing with Giants: China, India, and Global Economy*. Edited by Alan Winters, Shahid Yusuf, Washington, D.C.: World Bank.
- Knack, Stephen, and Philip Keefer. 1995. "Institutions and Economic Performance: Cross-Country Test Use Alternative Measures." *Economics and Politics*, 7(3): 207-227.
- Knutsen, Carl Henrik. 2011. "Democracy, Dictatorship and Protection of Property Rights." *Journal of Development Studies*, 47(1):
- Kohli, Atul. 2007. "State, business, and economic growth in India." *Studies of Comparative International Development*, 42: 87-114.
- Krugman, Paul. 1991. "Increasing returns and economic geography," *Journal of Political Economy*, 99: 483-499.
- Kung, James and Ting Chen. 2013. "Do land revenue windfalls reduce the career incentives of county leaders? Evidence from China." Unpublished working paper.
- Kuznets, Simon. 1955. "Economic Growth and Income Inequality," *American Economic Review*, 19(1): 1-28.

- Leblang, David. 1995. "Property rights, democracy, and economic growth." *Political Research Quarterly*, 9(2): 5-26.
- Lewis, Arthur. 1954. "Economic development with unlimited supplies of labor." *The Manchester School*, 22: 139-191.
- Li, Quan, and Adam Resnick. 2003. "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries." *International Organization* 57: 175-211.
- Lucas, Robert. 1997. "Internal migration in developing countries." *Handbook of Population and Family Economics*, 721-798.
- Magee, Stephen. 1971. "Factor market distortions, production, distribution, and the pure theory of international trade." *Quarterly Journal of Economics*, 85(4): 623-643.
- Markusen, James. 2002. *Multinational Firms and the Theory of International Trade*. Cambridge: MIT Press.
- Markusen, James. 2005. "Modeling the offshoring of white-collar services: from comparative advantage to the new theories of trade and FDI." *NBER Working Paper*.
- Ministry of Rural Development (India). Report of the committee on State Agrarian relations and the unfinished task for land reform. 2009. Available at <http://dolr.nic.in/agrarian.html>.
- Ministry of Home Affairs (India) 2011. "Estimates of Fertility Indicators," *Sample Registration System Statistical Report 2011*.
- Ministry of Labor and Employment (India). 2010. *Annual Report to the People on Employment*.
- Ministry of Textiles. 2009. Profile of the Textile Sector: Inflow of FDI Data. Available at http://texmin.nic.in/fdi/fdi_data_Inflow_financial_year_wise_ermiu_akb.pdf.
- Ministry of Textiles. 2014. Annual Report 2013-2014. Available at http://texmin.nic.in/annualrep/ar_13_14_english.pdf.
- Mosley, Layna, and Saika Uno. 2007. "Racing to the bottom or climbing to the top? Economic globalization and collective labor rights." *Comparative Political Studies*, 40(8), 923-948.
- Mosley, Layna. 2008. "Workers' Rights in Open Economies: Global Production and Domestic Institutions in the Developing World." *Comparative Political Studies*, 41(4): 674-714.
- Mosley, Layna. 2011. *Labor Right and Multinational Production*. New York: Cambridge

University Press.

- Mullan, Katrina, Pauline Grosjean, and Andreas Kontoleon. 2011. "Land Tenure Arrangements and Rural–Urban Migration in China." *World Development*, 39(1): 123-133.
- Munshi, Kaivan and Mark R. Rosenzweig. 2009. "Why is mobility in India so low? Social insurance, inequality, and growth." *NBER Working Paper 14850*.
- Munshi, Kaivan and Mark R. Rosenzweig. 2006. "Traditional Institutions Meet the Modern World: Caste, Gender and Schooling Choice in a Globalizing Economy." *American Economic Review*, 96(4): 1225-1252.
- Nahm, Jonas and Edward Steinfeld. 2014. "Scale-Up Nation: China's Specialization in Innovative Manufacturing." *World Development*, 54: 288-300.
- Nitikin, Dennis, Chunli Shen, Qian Wang, and Hou-fu Zou. 2012. "Land Taxation in China: Assessment of Prospects for Politically and Economically Sustainable Reform." *Annals of Economics and Finance*, 13(2): 489-528.
- North, Douglass C. and Barry Weingast. 1989. "Constitutions and commitment: the evolution of institutions governing public choice in seventeenth century England," *Journal of Economic History* 49(4): 808-832.
- North, Douglass. 1990. *Institutions, Institutional Change, and Economic Performance*. New York: Cambridge University Press.
- Organization for Economic Co-operation and Development (OECD). 2011. *OECD Economic Surveys: India*. Paris: OECD.
- Park, Albert. 2008. "Rural-urban inequality in China." In *China Urbanizes: Consequences, Strategies, and Policies*. Edited by Shahid Yusuf and Tony Saich. Washington, D.C.: The World Bank.
- Park, Albert and Fang Cai. 2011. "The informalization of the Chinese labor market." in *From Iron Rice Bowl to Informalization*, edited by Mary Gallagher, C.K. Lee and S. Kuruvilla. Ithaca: Cornell University Press.
- Patibandla, Murali and Bent Petersen. 2002. "Role of Transnational Corporations in the Evolution of High-Tech Industry: The Case of India's Software Industry." *World Development*, 30(9): 1561-1577.
- Przeworski, Adam, Michael Alvarez, Jose Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. New York: Cambridge University Press.
- Qi, Dongtao. 2010. "Chinese working class and trade unions in the post-Mao era: progress and

- predicament.” *International Journal of China Studies*, 1(2): 413-33.
- Rodrik, Dani. 2007. *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton: Princeton University Press.
- Rodrik, Dani, and Arvind Subramanian. 2005. “From ‘Hindu growth’ to productivity surge: the mystery of Indian growth transition.” *IMF Staff Papers*, 52(2): 193-228.
- Rogowski, Ronald. 1989. *Commerce and Coalitions: How Trade Affects Domestic Political Alignments*. Princeton: Princeton University Press.
- Sincavage, Jessica, Carl Haub, and O.P. Sharma. 2010. “Labor costs in India's organized manufacturing sector.” *Monthly Labor Review*, May: 3-22.
- Singh, Jaivir. 2009. “Labor law and special economic zones in India.” Working paper 09/01, Center for Studies of Law and Governance, New Delhi.
- Singh, Ram. 2012. “Inefficiency and Abuse of Compulsory Land Acquisition: An Enquiry into the Way Forward.” *Economic and Political Weekly*, May 12.
- South China Morning Post*. 2015. “Top China Official’s Criticism of Labor Policy Sparks Controversy.” May 3.
- Tilly, Chris. Rina Agarwala, Sarah Mosoetsa, Pun Ngai, Carlos Salas, and Hina Sheikh. 2013. *Informal Worker Organizing as a Strategy for Improving Subcontracted Work in the Textile and Apparel Industries of Brazil, South Africa, India and China*. International Labor Affairs Bureau (US Department of Labor) and UCLA Institute for Research on Labor and Employment.
- Wang, Hui, Juer Tong, Fubing Su, Guoxue Wei, and Ran Tao. 2011. “To reallocate or not: Reconsidering the dilemma in China's agricultural land tenure policy.” *Land Use Policy*, 28(4): 805-814.
- Wang, Jiaoping. 2007. “Behind the enactment of Labor Contract Law”. *Worker’s Daily*, July 10.
- Whyte, Martin. ed. 2010. *One Country, Two Societies: Rural-Urban Inequality in Contemporary China*. Cambridge: Harvard University Press.
- World Bank. 2010. *India’s Employment Challenge: Creating Jobs, Helping Workers*. New York: Oxford University Press.
- World Bank. 2012. *China 2030: Building a Modern, Harmonious, and Creative High-Income Society*.
- World Bank. 2015. *World Development Indicators*. Updated on July 1, 2015.

- Wu, Xiaogang, and Donald Treiman. 2007. "Inequality and Equality under Chinese Socialism: The Hukou System and Intergenerational Occupational Mobility," *American Journal of Sociology*, 113(2): 415-445.
- Wu, Yilin and Gu Bing. 2014. "Fangzhi ye neiwai zi jingji fazhan zhuangkuang jiqi jingzheng li bijiao fenxi" [Comparison of performance and competitiveness between foreign and domestic firms in the textile industry]. *Zhongguo Shichang* [Chinese Market], 7: 70-86.
- Xinhua News Agency. 2012. "China to amend land administration law." December 24.
- Xin Jing Bao [Beijing News]. 2010. "Yu Jianrong: tudi jiufen cheng nongcun shehui wending shouyao wenti" [Yu Jianrong: Land dispute is the primary concern for rural stability]. November 5.
- Xu, Daowen. 2011. "laodong hetong fa lifa mudi yi chubu xianxian" [Preliminary effect of Labor Contract Law]. *China Social Science Daily*, June 15, 2011.
- Zheng, Yu. 2014. *Governance and Foreign Investment in China, India, and Taiwan: Credibility, Flexibility and International Business*. Ann Arbor: University of Michigan Press.

Table 1: Sector-wide Distribution of FDI in China and India

	1 China 2000-10	2 India 2000-10	3 China 2008-10	4 India 2008-10
Manufacturing	59.4%	30.0%	51.0%	25.3%
Services	38.3%	68.0%	44.3%	69.5%

Source: China Statistical Yearbooks, 2001-2011.

Ministry of Commerce & Industry, Government of India. 2010. "Fact sheet on Foreign Direct Investment, from April 2000 to March 2010."

http://dipp.gov.in/English/Publications/FDI_Statistics/2010/india_FDI_March2010.pdf.

International Trade Centre Investment Map,

<http://www.investmentmap.org/competitorCountry.aspx> Access on August 17, 2013.

Note: Column 1 uses sector-wise FDI data with 19 categories from 2000 to 2010.

Manufacturing is unspecified. Service FDI includes FDI inflows in the narrowly defined service sector plus construction, telecommunications, computer software, hotels and tourism, and education.

Column 2 uses sector-wise FDI data with 63 categories from April 2000 to March 2010.

Manufacturing includes 42 categories and services include 16 categories.

Column 3 and 4 use sector-wise FDI data from International Trade Centre from 2008 to 2010 based on International Standard Industrial Classification (ISIC). Manufacturing includes 16 secondary sectors. Services include 16 tertiary sectors.

Table 2: Structures of Manufacturing Employment

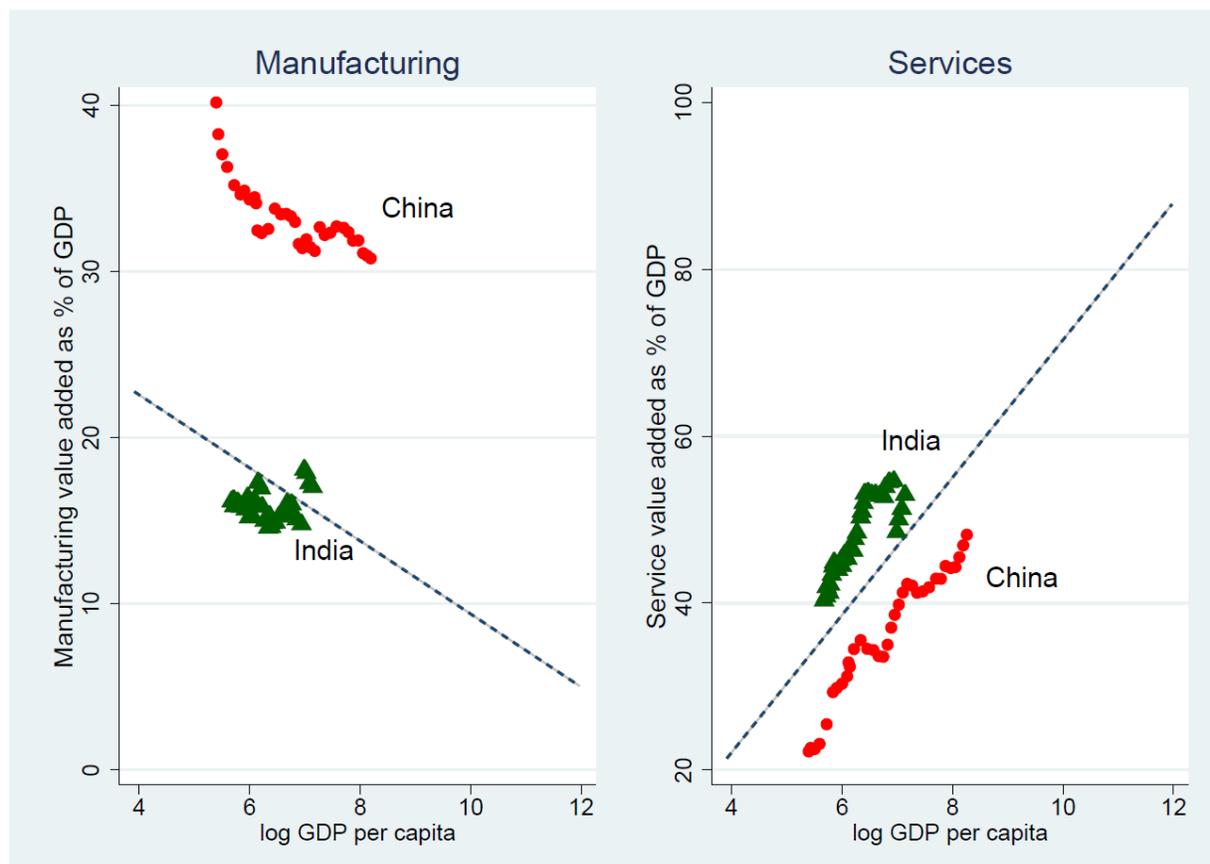
Unit: million

Year	India			China					
	Total workers	Informal workers	Informal ratio	1 Total workers	2 Total Urban workers	3 Urban private & self-employed	4 TVE workers	5 Informal Ratio I	6 Informal Ratio II
1989	43.2	35.0	80.9%	112.9	53.7	0.8	56.2	51.9%	1.6%
1994	42.4	33.1	78.2%	128.7	59.8	2.7	64.3	54.0%	4.5%
2000	45.1	37.1	82.3%	120.3	45.0	6.3	69	66.1%	14.1%
2005	44.9	36.5	81.2%	127.2	45.4	13.3	78.5	74.1%	29.3%
2010	52.1	45.3	87.1%	122.2	57.9	21.5	65.6	70.5%	37.1%

Source: The Indian data are from Reserve Bank of India. 2011. “Productivity, Efficiency and Competitiveness of the Indian Manufacturing Sector”, Table 2.3, and International Labor Organization 2012; The Chinese data are from various years of China Statistical Yearbook and China Village and Town Enterprise Yearbook.

Note: The total number of manufacturing employment (1) is the sum of total urban manufacturing (2) and TVE manufacturing employment as total manufacturing employment (4). Informal ratio I (5) is calculated as employment in TVEs and urban private and self-employed enterprises (3+4) divided by total manufacturing employment (1). Informal ratio II (6) is calculated as employment in urban private and self-employed enterprises (4) divided by total urban manufacturing employment (2).

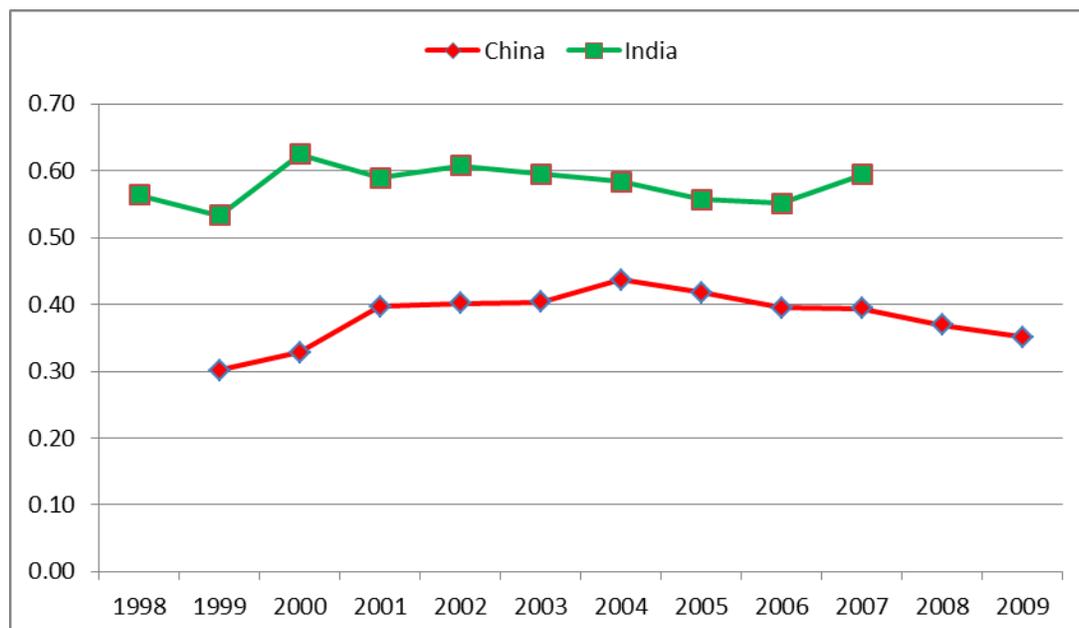
Figure 1: The Relationship between Economic Development and Economic Structure 1980-2014



Source: World Development Indicators, 2015.

Note: The linear prediction is based on a regression of share of manufacturing value added (left) and service value added (right) in GDP on log GDP per capita in 1980-2014, and country fixed effects. The dotted lines represent the predicted values.

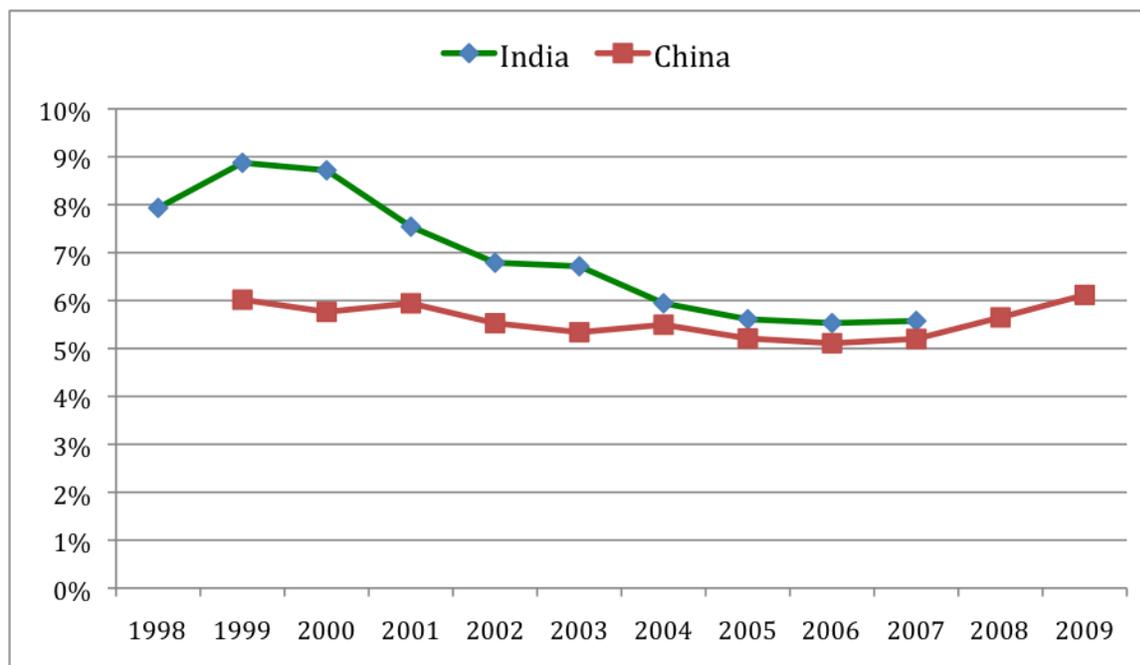
Figure 2: Inter-industry Wage Differentials



Source: author's calculation using data from China Statistical Yearbook (various years) and Time Series Data on Annual Survey of Industries (India), from 1998-99 to 2007-08.

Note: The figure plots coefficients of variation of industry-average wage as a proxy of inter-industry labor mobility. China's industry-average wage is calculated as accrued payroll per employee using two-digit divisions of industry based on the 1994 industrial classification (from 1999 to 2002) and the 2002 industrial classification (from 2003 to 2009). India's industry-average wage is calculated as emolument per employed person using two-digit divisions of industry based on National Industrial Classification (NIC) 1998 (from 1998-99 to 2003-04) and NIC-2004 (from 2004-05 to 2007-08).

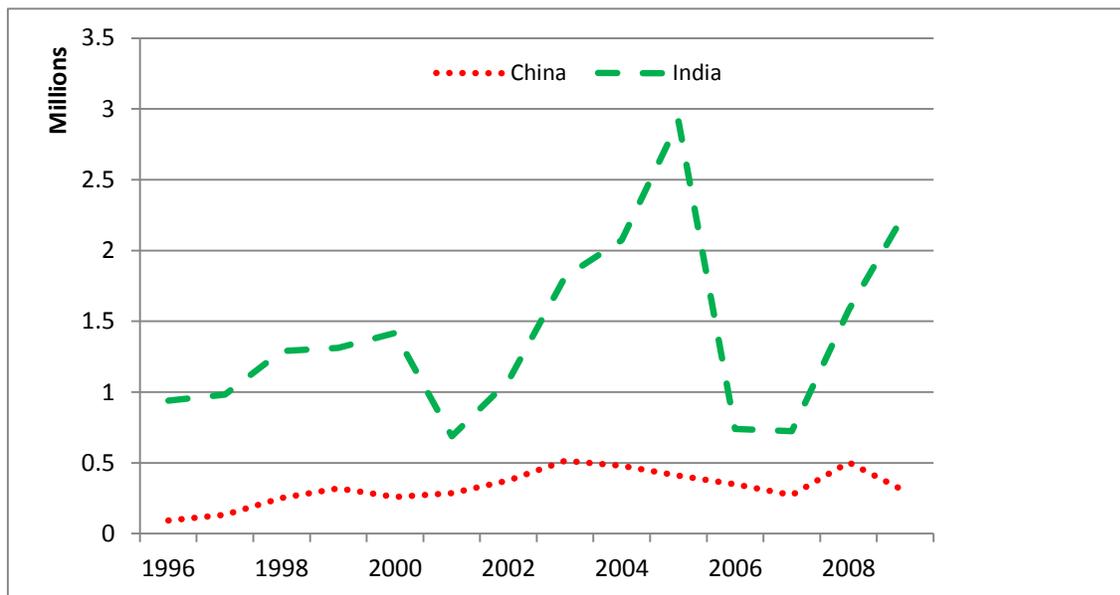
Figure 3: Share of Labor Input in Total Manufacturing Output



Source: author's calculation using data from China Statistical Yearbook (various years) and Time Series Data on Annual Survey of Industries (India), from 1998-99 to 2007-08.

Note: The figure plots the average share of labor input in total output at each of the two-digit manufacturing industries. China's share is measured as accrued payroll divided by gross industrial output value at local currency based on the two-digit industry-level data between 1999 and 2009. India's share is measured as total emoluments divided by value of output at local currency based on the two-digit annual survey of industries (ASI) data between 1998-99 and 2007-08. "Total emoluments" are the sum of wages and salaries as well as welfare expenses. The two-digit manufacturing divisions are based on the 1994 industrial classification (from 1999 to 2002) and the 2002 industrial classification (from 2003 to 2009). India's manufacturing two-digit manufacturing divisions are based on National Industrial Classification (NIC) 1998 (from 1998-99 to 2003-04) and NIC-2004 (from 2004-05 to 2007-08).

Figure 4: Workers Involved in Collective Labor Disputes, 1996-2009



Source: China Labor Statistics Yearbook 2010, p. 417-18

India: 2006-2009 data from Ministry of Labor and Employment's Annual Report 2009-10 (p. 57) and 2010-2011 (p. 36); 2002-2005 data from <http://labourbureau.gov.in/idtab.htm>; 1996-2001 data from Ahn (2010).

Note: Collective labor disputes in India include strikes and lockouts.