



# The Northeast Asian Economic Review

Vol. 5 No. 2 October 2017

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# What Matters in the Urbanisation of China?<sup>1</sup>

Nobuhiro Okamoto\*

## Abstract

*This study reveals the characteristics of urbanisation in China, which has started as a comprehensive socio-economic plan since 2014. It examines the ongoing urbanisation process from the perspectives of history, the size of city, village urbanisation and costs and benefits of the settlement of rural migrants in cities. The study argues that urbanisation in China is characterised by not only 'spatial urbanisation', which has been commonly observed in developed countries, but also 'institutional urbanisation'. Thus, it is imperative for the Chinese government to overcome the institutional barriers to achieve the goal of ideal urbanisation.*

Keywords: city size, rural migrant, urbanisation

JEL Classification: E17, O18, R10

## 1. Introduction

Urbanisation is often considered to be a natural consequence of industrialisation. However, China has begun to carry out urbanisation on purpose recently, which has appeared to be delayed compared with its economic development because the enlargement of cities was artificially restricted during the last half century.

After entering the 21<sup>st</sup> century, China has begun to focus on urbanisation which could be the driver of further economic growth to overcome the anxiety of middle-income trap.

This study deeply investigates the urbanisation process in China which has been conducted as a national critical development plan, discussing the characteristics of the Chinese urbanisation by clarifying its history and the current policy, as well as conducting a statistical analysis and field survey.

This study consists of four parts. First, the study examines the history of urbanisation and reveals that China has constrained its people's concentration to cities. Second, the study shows that the number of large cities have become relatively small and small cities are still many and tiny regarding the population, as statistics shows. Under restricted population conditions in larger cities, China is now focusing on urbanisation in villages with massive public investment, and the government apparently cannot afford to continue further urbanisation in the future, based on the cost-benefit analysis. Third, we propose that the characteristics of Chinese urbanisation consist of 'spatial urbanisation' and 'institutional urbanisation'. Finally, we conclude that investigating the rationality, sustainability, and affordability of urbanisation matters in China.

## 2. Background

### 2.1 History

The history of urbanisation goes back to the decades before the open-door policy and

economic reform, which began in 1978.

New China (People's Republic of China) was established under the leadership of Mao Zedong on 1<sup>st</sup> October, 1949 and the First Five Year Plan (1952–1957) was initiated to promote economic development with the support of the former Soviet Union. Massive labour flowed into cities since the construction boom occurred in the cities, owing to recovery from war. Furthermore, people's anticipation of having a free apartment allocation under the new socialist government stimulated migration. Excessive labour migration into cities, however, caused the 'Three Overrun' (by Zhou Enlai) problem, which indicates that the demand for labour, wage and food far surpassed (outweighed) the supply. Obviously, the urbanisation ended in failure.

Consequently, the government introduced a new policy, the so called Hukou (household registration) system which limited migration from villages to cities, to control mass migration and ensure social stability. In addition, an anti-urbanisation programme, such as increasing movement of the young generation to villages (Xia Fang Qing Nian), was implemented to promote rural development in coordination with the cities' growth. Through this experience, the Chinese government has become sensitive to labour migration and its ensuing progress of urbanisation. Okamoto (2014a) called this experience 'Trauma of Urbanisation'.

After Deng Xiaoping initiated the open-door policy and economic reform in 1978, industrial parks, which were known as 'Special Economic Zone' or 'Economic Development Zone', were newly established mainly in the coastal region in the 1980s and 1990s for attracting foreign investment. These new industrial areas accepted massive rural migrant workers as cheap labour in the meantime. In the 1980s, this type of migration was termed as 'Blind Flows' (Meng Liu), which implied a surge in the movement of low-educated rural migrants into cities. However, the image of migrants was gradually changed to 'Rural Workers Tide' (Ming Gong Chao) in the 1990s. The term involves the image of rural workers supporting the development of factories in the coastal area, and the government managed the ordered migration based on the contracts between both the inland and coastal governments regarding labour allocation (or migration). Subsequently, these workers settled in the new industrial area of cities, and it helped to advance urbanisation in the coastal region.

This trend changed dramatically after 2000. 'Urbanisation' as one chapter appeared in the Tenth Five Year Plan (2001–2005), implying that 'urbanisation' had become a part of the national economic plan. Hukou, the restricted 'wall' between the urban and rural areas, has been increasingly mitigated or deregulated during the decade, and it has become easier for migrants to settle in small cities such as county-level towns. The medium-sized city became open to migrants under a certain conditions of housing and employment. The larger city, however, was still restricted for migrants.

## 2.2 New-type Urbanisation Plan

After the Xi-Li administration assumed power in 2013, Li Keqiang, the prime minister of China, emphasised plans to create a 'new human-centred style of urbanisation'. This new term appears to indicate that the current administration believes that urbanisation should be a part of the main development plan for the country's further economic growth during the period of the Xi-Li administration. In March 2014, China's State Council materialised this idea as a detailed development plan called 'National New-type Urbanisation Plan 2014-2020', and released it along with an urbanisation target of more than 60%.

Although the contents of this urbanisation plan encompass a wide range of topics concerning urbanisation, they can be mainly summarised as below:

- (1) To help more migrants settle in cities
- (2) To ensure that rural migrant workers enjoy equal public services in cities
- (3) Unification or integration of rural and urban systems
- (4) Regional balance of urban and city cluster development
- (5) Constructing environment-friendly cities
- (6) Increasing the capability of city management

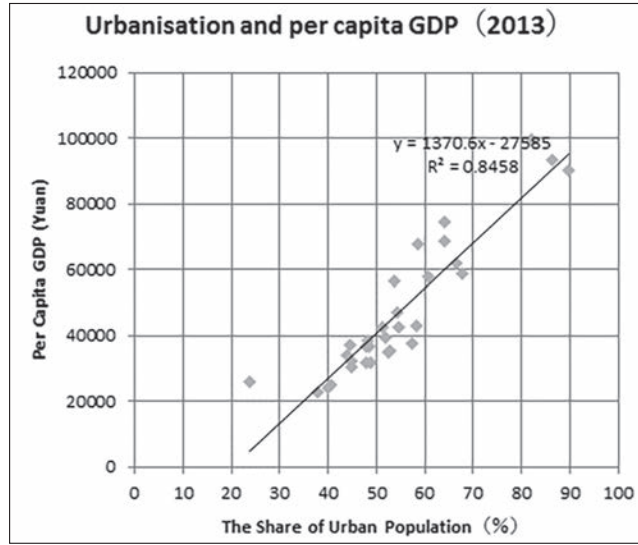
In short, this urbanisation plan, promoted by the Chinese government, can be regarded as a general economic development policy and an institutional reform programme, since the government is expecting to promote infrastructure construction and settlement of migrant workers, aiming to increase consumption and develop the service sector in cities. Moreover, while the latter contents from (4) to (6) are usually observed worldwide, the former points from (1) to (3) are typical Chinese characteristics of urbanisation. Besides, since the government has paid more attention to human settlement than to infrastructure construction, this plan is called 'new-type' urbanisation.

Although UN-Habitat is stressing the importance of urban planning and policy (UN-Habitat 2016), the implementation of urbanisation itself has not been an independent and economic policy throughout the world. Why does the administration of China focus on urbanisation? There are several reasons for this move, and there are some widely known benefits from urbanisation, as pointed out by Glaeser (2011).

First, urbanisation can be the new driver of economic growth. There is a positive relation between urbanisation rate and per capita GDP among provinces, which clearly shows the increase of labour productivity as the population concentrated in cities because it helps to create economies of scale and expand market size. (Figure 1)

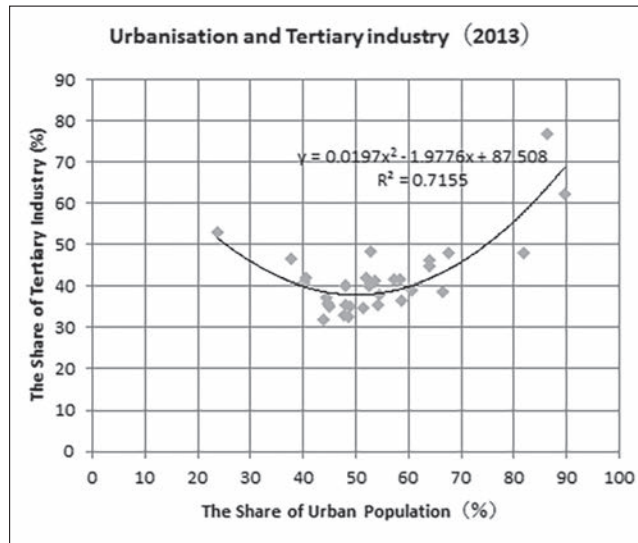
Second, urbanisation can be expected to bring about the transformation of industrial structure from a manufacturing-led economy to a service and consumption-centred economy. The shift from the economy driven by exports to that driven by domestic demand has been one of the inevitable elements and immense challenges for China to realise sustainable growth for years to come. If urbanisation induced these changes, it would help to avoid the 'middle-income trap', which many developing countries are facing today. Figure 2 indicates that highly urbanised provinces mostly are the economies where the tertiary industry has been developing. After provinces reached a 50% urbanisation rate, there is an increase in the share of the tertiary industry as the urbanisation progresses. However, the provinces with low urbanisation rate see a relatively high share of the tertiary industry because of the underdeveloped manufacturing sector.

**Figure 1: Urbanisation and Per Capita GDP by Province**

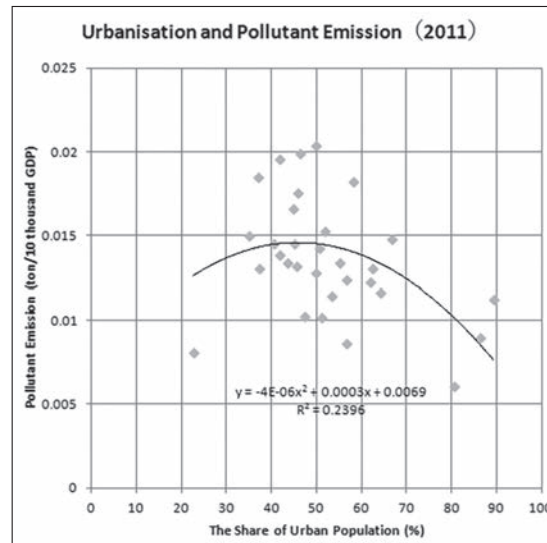


Source: China Statistical Yearbook

**Figure 2: Urbanisation and Tertiary Industry by Province**



Source: China Statistical Yearbook

**Figure 3: Urbanisation and Pollutant Emission by Province**

Source: China Statistical Yearbook

Finally, people living in cities have increased awareness of the environment and learn to support environmentally friendly development in China. For instance, the air pollution in Beijing has become an increasing concern for the government. Although urbanisation is often considered detrimental to the environment, cities are more eco-friendly regarding the usage of energy and emission of garbage (Glaeser 2011). In the case of China, Figure 3 does not show this trend clearly. However, this graph can be interpreted as a sort of the inverted U-shape relation between urbanisation and the emission of waste, which means that the waste emission increases as the population concentrates in cities, whereas the waste emission falls when urbanisation exceeds 50%.

### 3. Characteristics of urbanisation in China

As we discussed in the previous section, China restricted the movement of people from villages to cities historically, and the urbanisation rate is relatively low compared with other countries. However, the Chinese government has been promoting urbanisation from the beginning of the 21<sup>st</sup> century and accelerated the process under the name of New-type Urbanisation Plan since 2014. Here, we further investigate the urbanisation of China from the viewpoints of rationality, sustainability and affordability.

#### 3.1 City System – Rationality

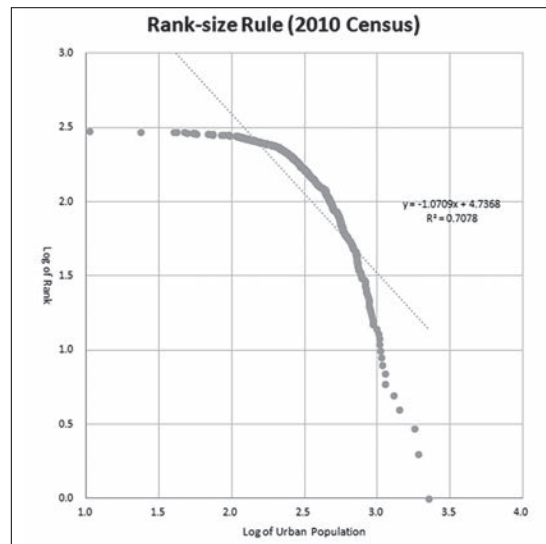
It is well known that city size seems to be distributed according to a certain law, and it is the so called rank-size rule or rank-size distribution of city population, which is a commonly observed statistical relationship between the population sizes and population ranks of a nation's cities. The population of the N<sup>th</sup> largest city is 1/N times the population of the largest city, and it is also referred as Zipf's law. In large samples, this claim is equivalent to the city size



distribution, being characterised by a power distribution with a coefficient of minus one.

There has been extensive research in this field, and the results are almost similar despite several debates in the literature (see, for example, Chauvin et al. 2016). China has far fewer extremely large cities and more small towns than Zipf's law would suggest. Okamoto (2014b) also shows the same result as follows.

**Figure 4: Rank-Size Rule**



Source: Okamoto (2014b)

Moreover, other studies concluded that there are a few large cities and a great number of small towns in China (Henderson 2009; Lu and Wang 2014). Thus, the policy should be considered based on the balanced city system. The ongoing urbanisation policy in China still focuses on keeping city size of megacities such as Beijing, Shanghai, Guangzhou and Shenzhen. This policy, however, obviously will not be sustainable if the city size distribution holds to the rank-size rule.

### 3.2 Village Urbanisation – Sustainability

As shown in the rank-size rule, China should open up the megacities for the settlement of rural workers. However, the government still decided to restrict rural migration in extremely large cities in the 'New-type Urbanisation Plan'. On the other hand, in the plan, China urged that people's concentration in small size towns should be promoted. Under the strict migration condition in larger cities, urbanisation in villages and towns is one of the most feasible options for the Chinese government, and it can also be one of the most vital features of Chinese urbanisation. This urbanisation in China is called 城镇化 (Chengzhenghua) in Chinese, which means 'urbanisation in both city (Cheng) and town (Zhen) areas'.

Here, take the example of Guizhou. Urbanisation in villages and towns is an urgent issue in Guizhou Province in accordance with the progress of 'a comprehensively well-off society'. Since Guizhou is located in highlands with Karst topography, it is challenging for the Guizhou government to conduct urbanisation due to the limitation of flat land. This poor natural condition

compared with the coastal area has caused Guizhou to remain underdeveloped among other provinces, and consequently be ranked the lowest in per capita GDP<sup>2</sup>. Guizhou serves as a typical example of urbanisation in a rural area, considering its less developed feature, and urbanisation with emigration, not immigration, unlike the coastal region.

Topographical constraints such as Karst, highlands and mountains, allow Guizhou to conduct an original and exclusive urbanisation, named 'Newly Mountain type urbanisation'. It can be termed as 'urbanisation with local employment'.

According to the field survey conducted by the author (Okamoto 2016), Guian New Area (National Level) has been established near Guiyang, the capital city of Guizhou, since 2014. Some villages were shut down and residents were shifted to new villages prepared by the government with a definitely 'generous' privilege policy such as sufficient compensation payment for their lands and houses, and so on.

At another rural area in Guian New Area, Foxconn, which is a famous international electronics company, has set up new factories that will be able to provide more than 20 thousand jobs in two years. The local government has invested a huge amount of money into the development of a new town for the people who work at its factories there.

In addition, some other villages have also been refurbished and revitalised under the campaign of the promotion of 'Beautiful Villages' policy, which aims at shifting from an agricultural-based economy to a tourism-based economy, taking advantage of their natural beauty and historical heritage.

All these exercises to develop their town and village, however, have been promoted aggressively by the government and most of the financial resources are provided by the government and collective social capital. This phenomenon can be considered as investment-driven urbanisation – the cost of urbanisation is borne by the government. Furthermore, the development model of every village becomes very similar among other villages, because they learn from one another. This can be called 'Copy and paste urbanisation' – This can be referred to as 'copy and paste urbanisation'. It becomes critical to differentiate their tourism resources to ensure the flow of tourists, which is the next stage of development. Therefore, this kind of urbanisation arguably is not sustainable if the influx of money or visitors stops into the villages.

### 3.3 Human-Centred Urbanisation – Affordability

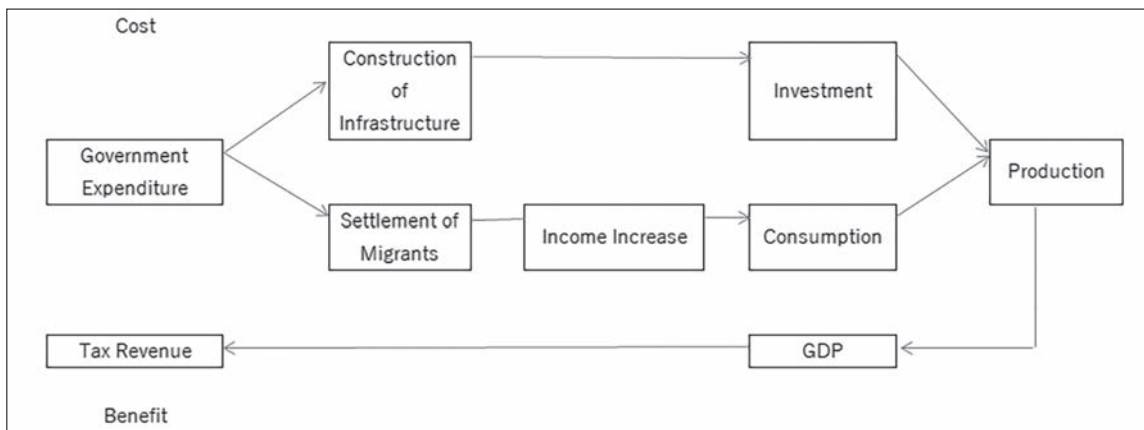
The primary issue of New-type Urbanisation is how to settle the migrants from rural areas into cities. As mentioned above, the cost of urbanisation such as resettlement of farmers and revitalization of villages is enormous, and the government is expected to bear the responsibility of paying the bill of migrant workers' settlement. Then we would have these questions. How much does it cost? Can the government afford to pay the bill?

Several research institutes and scholars (for example, see The Research Group of DRC 2011, Dang 2013) have estimated the cost of migrants' settlement. They estimated that the government has to pay around 100 thousands yuan for additional burden of social safety net and infrastructure when one rural migrant becomes an urban resident. The World Bank and the Development Research Centre (2014) simulated the cost and benefit of urbanisation in the long term based on their economic model, and it indicates that although the cost is larger than the benefit in the short term, it would be able to pay off in the long run.

Okamoto (2014c) has also estimated the cost and benefit of urbanisation, and the results

are discussed in the next section. Figure 5 presents the relation between the costs and benefits. The cost is considered to be the expenditure by the government on construction of urban infrastructures such as transport networks like roads and subways, and public services for settlers, such as social insurance, which is supposed to be only provided to the urban household registration holders. The benefit of urbanisation would be the tax revenue the government can obtain by both expanding consumption by increased new settlements and shifting to tertiary sectors.

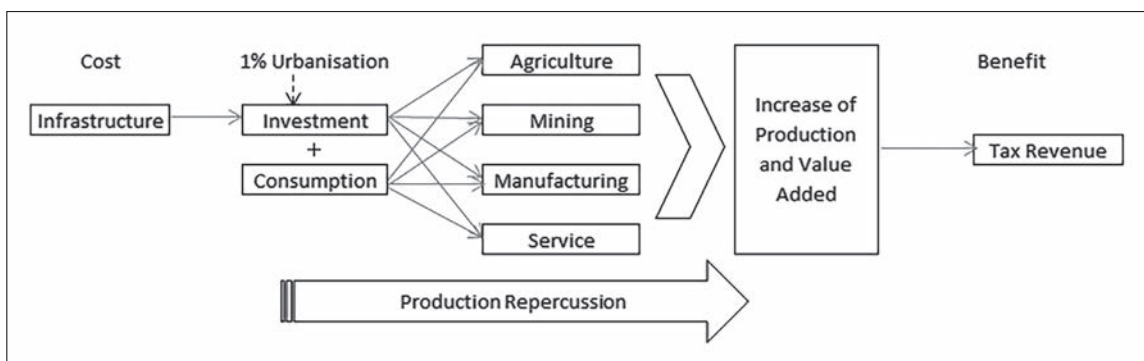
**Figure 5: The Cost and Benefit of Urbanisation**



Source: Okamoto (2014c)

Okamoto (2014c) carried out an economic simulation using the simple input-output model based on the scenario shown in Figure 6. The estimated investment and increased consumption promoted by 1% urbanisation, calculated from the past trend, would stimulate the production of each industrial sector and would lead to the increase of GDP and, consequently increase tax revenue. The simulation results are indicated in Table 1 with a comparison of other research results.

**Figure 6: The Simulation Model**



Source: Okamoto (2014c)

**Table 1: The Simulation Results** (Unit: 100 million Yuan)

	Cost	Benefit
DRC	11,147	
Dang-CASS	17,781	
WB-DRC	31,567	91,765
Okamoto	6,198	2,267

Source: Okamoto (2014c)

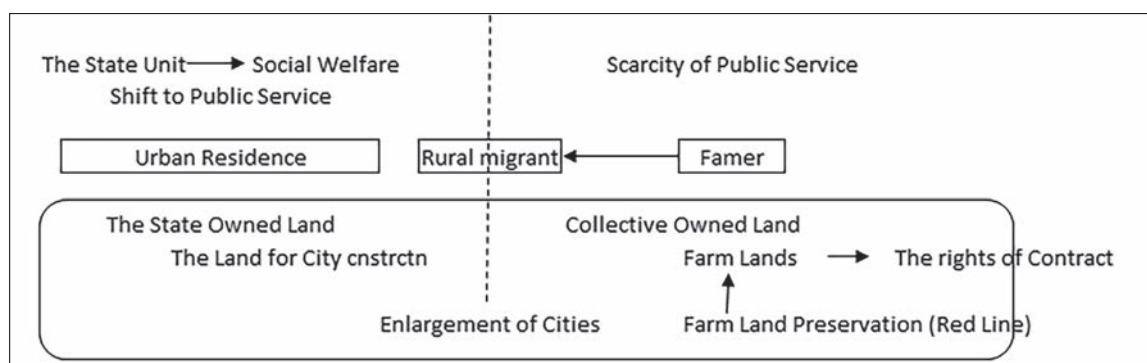
Although the cost estimated by Okamoto (2014c) is underestimated compared with other research because of the exclusion of public service, the result illustrates that the expected revenue of the government will be lower than public spending. It means that the government cannot pay the bill for urbanisation. Therefore, urbanisation conducted mainly by the government can no longer be certainly sustainable in the long run unless the government discovers other sources of revenue<sup>3</sup>.

#### 4. What matters?

##### 4.1 Further Discussion – Process of Urbanisation

Figure 7 illustrates how the process of urbanisation in China has advanced so far for the last few decades and what has occurred in the process. Before 1978, the urban area and rural area were divided clearly in terms of the institution, mainly governed by the state-owned enterprise in urban areas and people’s commune in the countryside, and the migration was strictly controlled and basically prohibited with some exception such as soldiers and university students. After 1978, rural workers began to migrate from their villages to towns and cities, becoming the cheap labour force in factories and helped in the massive exports of China and its rapid development. Nevertheless, no social welfare has been provided to the migrants while urban residents enjoyed the privileges of this welfare. The demand for land in cities has increased due to the needs for dwellings and production sites. For the construction of cities, however, the changes of registration from the collective-owned land to the state-owned land are imperative when farmlands need to be converted to the cities’ construction land. This is because the government needs to preserve farmlands in order to maintain sustainable agricultural production.

**Figure 7: Illustration of Urbanisation in China**



Source: by author

As seen in Figure 7, the Rural-Urban Divide, or the so called Dual System, has been established institutionally in terms of labour, land mobility and the difference of citizenship. ‘Hukou’, the household registration system, played a major role in restricting migration and generated ‘illegal’ migration. In the meantime, migrants without urban citizenship cannot enjoy welfare packages of pension, medication, and education even though they live in cities. In addition, the division of land registration system deters the progress of urbanisation.

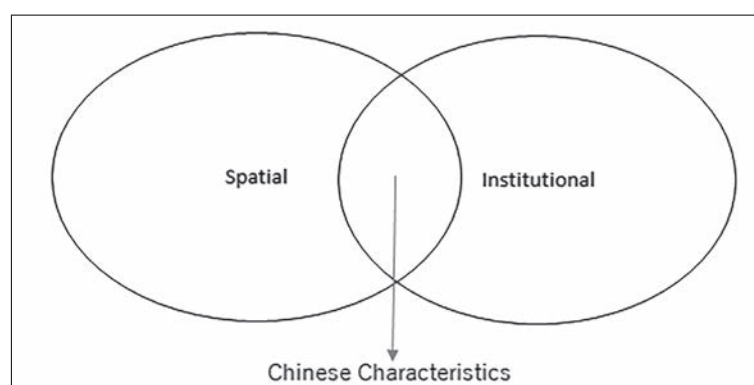
#### 4.2 Spatial and Institutional Urbanisation

In market economy countries, urbanisation in itself is often referred as the process of enlarging cities where labour and capital are concentrated in particular regions, and the land is changing from farms to buildings. Then, the policy the government adopts is a sort of the countermeasure of alleviating the pressure on infrastructure in cities, such as roads, underground and educational and medical institutions. This is termed as ‘Spatial Urbanisation’ in this paper: The government has to address the issue of how to effectively utilize space to adjust to the increasing population.

However, in China, as shown in the promotion of New-type Urbanisation Plan discussed above, urbanisation entails the enhancement of settlement of migrants in cities and also equalisation of both infrastructure and social welfare between rural and urban areas, while focusing on spatial urbanisation. In this regard, the Chinese government has focused on the reform of house registration system or ‘Hukou’ and reform on the unification of production factor market, such as labour and land market, between rural and urban areas. This is termed as ‘Institutional Urbanisation’ in this paper, which mainly focuses on how to reform the economic and social system to promote urbanisation in China.

In short, Chinese urbanisation is characterised by not only spatial issues that other countries experienced, but also institutional issues on the urban-rural division which has been artificially formed during the planned economy era. This discussion is shown in Figure 8.

**Figure 8: Characteristics of Urbanisation in China**



Source: By author

The cross term of spatial and institutional urbanisation indicates the most challenging issues the Chinese government has to tackle. A typical example of this is ‘village in town’, where the rural system is institutionally applied to the place, which spatially has already become an urban area accepting many migrant workers. Bei Si Cun in Beijing is one of the most prominent

villages in town which had been broadcast throughout the country by CCTV.

How to renovate or reform the villages in town is a severe problem in China because there are numerous rural migrants living there illegally and farmers of origin (having lived there with permanent registration) became virtually land owners or office workers in cities. The property right of land is vague because they are owned by a collective unit (all of the rural people literally but the rural government in reality). In addition, the government faces the dual problems of people - where to go - and money - where to come from.

## 5. Conclusion

As discussed above, the concentration of population in cities has not been consistent with the development of the Chinese economy due to the restriction of migration by the government, and the dual system between urban and rural areas has accelerated. On the other hand, a large part of the rural population began to move from the countryside to cities spatially after 1978 despite the restriction of the household registration system, which plays a crucial role in creating the dual system. Thus, the government needs to take appropriate measures against the issues of insufficient supply of social infrastructures such as housing, city transportation network, hospitals and schools, typically occurring in the process of population migration (spatial urbanisation). Furthermore, the government needs to deal with the significant challenges of how to settle the migrant workers who have already lived in cities, by removing the 'wall' segregating the urban and rural areas (institutional urbanisation).

In this study, we have found that the city size distribution has been distorted compared with the Zipf law, caused by the control of urbanisation. The rank-size rule showed that China has relatively small megacities such as Beijing, Shanghai, and a large number of small cities like towns and villages. Even though the urbanisation policy applied to megacities currently still restricts the number of settlements, village urbanisation has passionately been promoted to alleviate the pressure of emigrants from rural areas to the large cities. As seen in the field survey in Guizhou, the government is enhancing 'village urbanisation' such as the construction of new towns and reform of old villages, which are encouraged by huge government investment. Artificially, the rural farmers have become city and town dwellers by the government policy. However, they are nominally living in cities or towns without any equal privileges which urban people enjoy.

Village urbanisation is the right direction from the viewpoint of the rank-size rule, and it helps to create jobs for rural people who had migrated to urban areas earlier. However, the sustainability and feasibility of village urbanisation needs continuous investment by the government in the long run. In reality, according to the simulation, the cost of urbanisation would be larger than the benefit. That is, the increase in tax revenue brought about as the consequence of further economic development by urbanisation would be only around one-third of the government expenditure required for urbanisation. Therefore, the Chinese government has been facing a difficult situation on how to manage its spatial and institutional urbanisation at the same time.

What matters in the urbanisation of China? The author believes that the following topics should be researched further as discussed in the previous section:

- 1) The rationality of control by city size

- 2) The sustainability of urbanisation by the government
- 3) The affordability of policy implementation related to the financial source of the local administration, which is deeply dependent on land development.

The city is presumably a kind of place where government intervention occurs for carrying out urban planning in one situation and the individuals participate in the market freely. Too much intervention by the authority would halt city growth and ‘Laissez-faire’ in cities would lead to the disorder of development. Both extreme situations would decrease the fascination of the city itself. To realise vibrant cities, the exquisite balance between appropriate control by the government and free economic activity of the private sector is necessary. If China could manage both ‘spatial urbanisation’ and ‘institutional urbanisation’ appropriately to create vibrant and prosperous cities through this new-type urbanisation experiment, this experience would contribute to the development of urban policy or urban planning in the future.

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<sup>1</sup> The first version of this manuscript was presented at the Chinese Economic Association (UK/Europe) Annual Conference on 1st-3rd September, 2016. The second version was reported at the research meeting at ERINA on 23rd June, 2017. The comments there helped to revise this paper. This work was supported by JSPS KAKENHI Grant Number JP15K06261 and JP16K02002. I would like to thank Editage ([www.editage.jp](http://www.editage.jp)) for English language editing.

<sup>2</sup> However, per capita GDP in Guizhou became the second lowest in the provincial ranking from 2014, and it was the first time since 1949.

<sup>3</sup> The New-type Urbanisation Plan mentioned that property tax will be an alternate option for additional revenue for the government. However, it seems hard to implement as the trial implementation in Shanghai and Chongqing apparently resulted in failure.

## References

- Chauvin, Juan Pablo, Gaeser, Edward, Ma, Yueran, and Tobio, Kristina (2016), “What is Different about Urbanization in Rich and Poor Countries? Cities in Brazil, China, India and the United States”, *Journal of Urban Economics*, Vol.98, March, pp.17-49, available online June 9 2016. <http://dx.doi.org/10.1016/j.jue.2016.05.003>
- Dan, Qingqing (2013) “Research on the Cost and Sharing Mechanism of Civilianizing Migrant Workers (nong min gong shi min hua de cheng ben ji q1 fen dan ji zhi yan jiu)”, *China City Development Report – Shift of Population from Agriculture (City Blue Book)*, No.6, Social Science Publisher: Beijing, China (in Chinese)
- Glaeser, Edward. (2011) *Triumph of the City*, Penguin Books: New York
- Okamoto, Nobuhiro (2014a), “Control of Mega city in China – Background and Measurement (Chugoku Dai-Toshika no Yokusei – Haikei to Shudan)”, *East Asia (TOA)*, No. 562, pp.4-5. (in Japanese)
- Okamoto, Nobuhiro (2014b), “Is Repressing City Size Rational? – City Size Distribution in China (Chugoku no Toshi System – Toshikibo wo Yokuseisuru Noha Gouritekika?)”, *ERINA REPORT*, No. 121, pp.3-11. (in Japanese)
- Okamoto, Nobuhiro (2014c), “The Evaluation of New Type Urbanisation – Can China Pay the Bill for Urbanisation? (Shingata Toshika Seisaku No Hyoka – Chugoku Ha Toshika No Hiyo Wo Makanaerunoka?)”, *East Asia (Toa)*, No. 569, pp.32-53. (in Japanese)

- 
- Okamoto, Nobuhiro (2016) “Inland Urbanisation – The Case Study of Guizhou”, *Newly Type Urbanisation: Current Situation and its Policy (Chugoku No Shingata Toshika: Seisaku to Genjyo)*, edited by Okamoto, Institute of Developing Economies – JETRO, Research Report Series, 2015-[C-6] : Chiba, Japan (in Japanese) ([http://www.ide.go.jp/Japanese/Publish/Download/Report/2015/2015\\_C06.html](http://www.ide.go.jp/Japanese/Publish/Download/Report/2015/2015_C06.html))
- The Research Group of Development Research Center for State Council (DRC), (2011) *Civilianizing the Rural Migrants (nong min gong shi min hua: zhi du chuang xin yu ding ceng zheng ce she ji)*, China Development Publisher: Beijing, China (in Chinese)
- UN-Habitat (2016) *World Cities Report 2016: Urbanization and Development – Emerging Futures*, UN-Habitat (<http://unhabitat.org/books/world-cities-report/>)
- World Bank and Development Research Center of the State Council (2014) *Urban China: Toward Efficient, Inclusive and Sustainable Urbanization*, Conference Edition, World Bank Report (<http://www.worldbank.org/en/country/china/publication/urban-china-toward-efficient-inclusive-sustainable-urbanization>)



# Implications of Economic Growth, Poverty and Inequality in Mongolia over the Period of 2008-2012

Gan-Ochir Doojav\*  
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## Abstract

*This paper empirically examines Mongolia's growth performance from the perspective of its poverty-reducing and distributional characteristics over the period 2008-2012. The main findings are (i) absolute poverty in Mongolia has fallen, and poverty reduction has accelerated in boom years (2010-2012), (ii) Inequality has fallen in the period, but the inequality has stagnated during the boom, (iii) the poorer people have not suffered during the economic slowdown years (2007/08-2009) due to safety net programs of the government, including the cash transfer program, while the richer people have been more vulnerable to the economic condition, and (iv) the growth has been in general pro-poor. These results have important policy implications, including sustaining overall economic growth to further progress in poverty and inequality reductions and better-targeted social policies to improve the growth inclusiveness.*

Keywords: growth, poverty, income inequality, growth incidence curve and Mongolia

JEL classification: E25, I32, O15

## 1. Introduction

The conventional wisdom is that economic growth is the most powerful instrument for reducing poverty and improving the quality of life. However, economic growth does not in itself reduce poverty and inequality, and reducing poverty does not automatically lead to the reduction in inequality. In developing countries, the impact of economic growth upon the poverty and inequality is complex and contentious. For instance, the income of the poorest may increase less than proportionately with growth, and income inequality may increase with growth (Brueckner and Lederman, 2015, Ravallion, 2001).

Mongolia has achieved high economic growth in the last 15 years. The economy has experienced the growth rate of 8 per cent on average since 2000, and has been one of the fastest growing economies in the world during the period 2011-2013, clocking double-digit growth on the back of a mining boom. As a result, Mongolia is now classified as an upper middle-income country and a country with medium human development (Eriksson, 2015). However, there is debate about whether this high growth during the mining boom has benefited all society through reducing both poverty and inequality.

This paper empirically examines Mongolia's growth performance vis-à-vis changes in poverty and income distribution. In particular, we analyse inclusiveness of growth and pro-poor growth<sup>1</sup> in Mongolia over the period 2008-2012 (i.e., including the 2008-09 economic slowdown and the 2010-2012 mining boom) using the growth incidence curve (GIC) developed by Ravallion and Chen (2003). Though GIC is one of many alternative ways to measure growth inclusiveness, GIC is chosen as the main approach in the paper because the approach can simultaneously provide information about both growth inclusiveness and pro-poor growth.

Over the last four decades, economists have focused on the relationship between economic growth, poverty and inequality. The relationship can be traced back to the Kuznets (1955) and Solow (1956) models. Kuznets' inverted-U curve hypothesis suggests that economic growth in poor countries would initially lead to greater inequality, which would later decline as the economy continues to develop. However, Solow's growth model shows that poor countries tend to grow faster, and hence eventually converge with the developed countries. In recent years, a number of papers (ADB, 2004, Dollar and Kraay, 2002) has emphasized the importance of economic growth for poverty reduction. However, impact of growth on poverty is not straightforward. The overall impact of growth depends on a direct impact on poverty through an overall mean income growth, but also an indirect impact via changes in inequality.

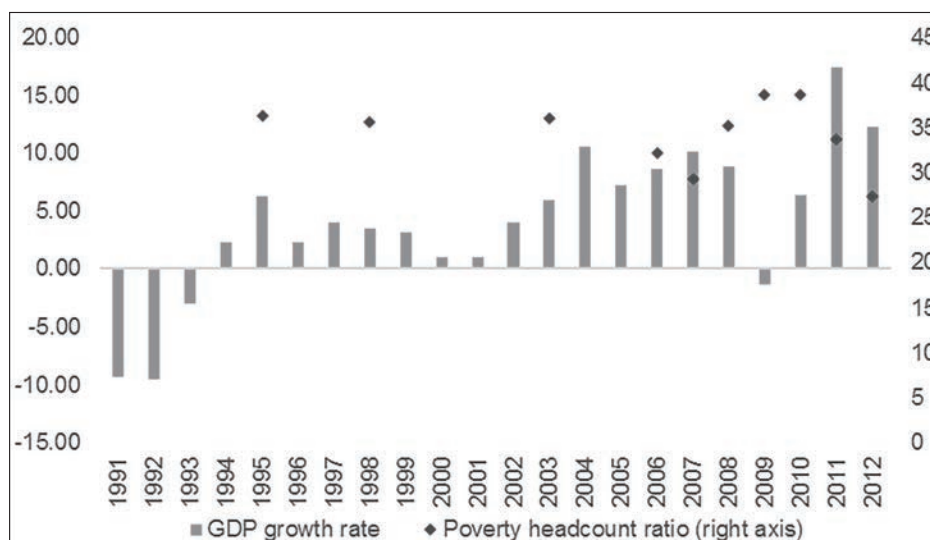
As highlighted by Ravallion and Chen (2003), the information on how the gains from aggregate economic growth (or the losses from contraction) are distributed across households can provide deep insight about the impact of growth on poverty and inequality. To analyse the distributional effect of growth, several papers (Klasen, 2008, Kraay, 2006, Warr, 2005) have calculated the 'growth incidence curve'<sup>2</sup>, showing the rate of growth over the relevant time period at each percentile of the distribution (ranked by income or consumption per person), for different countries. There are also few studies that have studied the impact of economic growth on poverty and income distribution in Mongolia (see for example, Smith, 2008, Marshall et al., 2008, and World Bank, 2011). This paper differs from the existing literature for Mongolia because of the difference in the sample periods, and this is one of the first attempts to identify growth inclusiveness and estimate the pro-poor growth during the mining boom period.

The remainder of the paper is organized as follows. Section 2 provides an overview of economic growth, poverty, cash-transfer programs and inequality in Mongolia based on the secondary data. Section 3 presents the methodology for constructing the growth incidence curve, identifying the inclusiveness of growth and estimating pro-poor growth. Section 4 describes the primary data based on Household Socio-Economic Surveys (HSES) conducted by National Statistical Office of Mongolia. Section 5 summarizes empirical results, investigating the impact of economic growth on poverty and inequality. Finally, section 5 concludes the paper with some policy implications.

## **2. An overview of economic growth, poverty, cash transfers and inequality in Mongolia**

Mongolia is a resource-rich, landlocked country, which has a population of slightly over 3 million. The economy has achieved high economic growth over the last decade. An average annual growth rate was 8.6 per cent between 2002 and 2012 and has been one of the fastest growing economies in the world during the period 2011-2013, clocking double-digit growth on the back of a mining boom. The global financial crisis (GFC) affected every region of the world, and Mongolia was no exception. The economy experienced a slowdown and recession between 2008 and 2009 (See Figure 1).

With two very large mining projects (i.e., the Oyu Tolgoi copper/silver/gold mine and the Tavan Tolgoi coal mine), Mongolia has experienced a large-scale commodity boom during the period 2011 and 2013. Thus, the recent years' growth was not broad-based and largely driven by the mining boom.

**Figure 1. Economic growth and poverty in Mongolia**

Source: Statistical Yearbooks, NSO, various years

Like other developing countries, the poverty measures in Mongolia have not been directly comparable until 2007/08. The poverty headcount ratio is calculated based on consumption expenditure rather than income. The minimum level of livelihood (national poverty line) is determined on the basis of monthly consumption per capita and is published by the National Statistical Office (NSO) annually by taking into account for inflation. Though there are two estimates of poverty in 1995 and 1998 reported by the NSO, the results are incomparable. There exist major differences in classifications, definitions, coverage, method and sampling error among the estimates (World Bank, 2008). The first household survey was conducted by the NSO in 2002/03 with the technical assistance from the World Bank and the United Nations Development Program (UNDP). However, since 2007/08, the NSO has annually conducted the HSES and the methodology has become consistent across surveys<sup>3</sup>. Thus, poverty measures calculated for the year 2007/08 and onwards are directly comparable. Table 1 presents all available poverty and inequality measures.

**Table 1. Poverty and inequality measures, 1995-2012**

Year	Poverty headcount ratio	Poverty gap	Ratio of consumption expenditure share of the top decile to that of the poorest decile	Gini coefficient <sup>1</sup>
1995	36.3 <sup>†</sup>	10.9	8.2	33.2 (31.0)
1998	35.6 <sup>†</sup>	11.7	7.5	30.3 (34.0)
2002/03	36.1	11	8.2	32.8 (32.9)
2006	32.2	10.1	-	-
2007/08	35.2	10.1	9.2	35.82
2009	38.7	10.6	-	-
2010	38.7	11.5	8.0	33.08
2011	33.7	9.2	8.2	33.88
2012	27.4	7.1	8.3	33.75

Source: Statistical Yearbooks, NSO and World Development Indicators, World Bank

Notes: <sup>1</sup>World Bank estimates. <sup>†</sup>The estimate is based on the Living Standards Measurement Survey<sup>4</sup>. The numbers in (·) are the Gini coefficients estimated by the NSO.

High poverty and rising inequality have been a major challenge in Mongolia over last two decades. Mongolia shifted from a centrally planned to a market-oriented economy in 1990. During the centrally planned system, poverty was almost non-existent in Mongolia. However, within one decade of market-oriented economy, a headcount ratio of poverty reached over 35 per cent. The household survey reported the headcount ratio as 36.1 per cent in 2002/03. As stressed by the World Bank (2011), the economic slowdown and recession driven by the GFC is associated with significant changes in aggregate poverty and inequality. For instance, the poverty rate has continuously increased during the period 2007-2009, and reached 38.7 per cent in 2009. However, poverty gap measuring the mean shortfall in consumption expenditure from the poverty line (expressed as a percentage of the poverty line) has been stable during the period 2002-2010.

Mongolia is the only developing country that has directly distributed natural resource wealth through cash transfers and actually introduced a resources-to-cash scheme. To counteract rising inequality and distribute the benefits of the mining boom more widely, the government of Mongolia set up a Human Development Fund (HDF) in November 2009 following announcement of the Oyu Tolgoi project agreement. The fund envisages cash handouts, payment of tuition fees and possibly financing of other social benefits. For instance, in 2010 every citizen received a cash handout of MNT 120,000 (equivalent to about US\$ 86). During the 2008 parliamentary election, public promises were made by key political parties to make total cash transfers of MNT 1.5 million per capita (US\$ 1,200). Monthly cash handouts of 10,000MNT (around US\$ 7) were distributed between August to December 2010, and of 21,000MNT (approximately US \$15) from January 2011 to June 2012. In 2011, the projected annual spending of the fund reached to almost 10 per cent of 2010 GDP (Isakova et al., 2012). Though the cash transfer arrangement had a number of pitfalls and disadvantages<sup>5</sup>, the government cash transfers account for a large share of the poor's income in Mongolia, and markedly reduced the poverty to 27.4 per cent in 2012. Moreover, the depth of poverty measured by poverty gap has significantly declined.

The Gini coefficient in Mongolia has been reported differently in different documents. The National Human Development Reports (NHDR) prepared by the UNDP shows even higher Gini coefficient. For instance, the NHDR 2003 reports the Gini coefficient in 2003 is 44 per cent, which is significantly higher than 32.8 per cent and 32.9 per cent estimated by the World Bank and the NSO, respectively. According to the World Bank estimates, income inequality had risen during the period 2002-2008. The Gini coefficient increased to 35.8 per cent in 2008. Since then, the rising income inequality has gained increasing public attention. Some economists argue that the higher income inequality can be a consequence of resource dependence as commodity rents accrue to a relatively small portion of the population.

As agreed by most economists, there are both benefits and threats of inequality. Some degree of the inequality may not be a problem since it provides the incentives for people to compete, save, and invest to move ahead in life (Dabla-Norris et al., 2015). However, high and sustained levels of inequality cause large social costs. Rising inequality can be a signal of lack of income mobility and opportunity. Deep-rooted inequality does not generate the 'right' incentives, and hence results in adverse social and economic consequences. The adverse consequences may include resource misallocation, financial and political instability, high crisis risk and eroding social cohesion and citizen's confidence in the future. Moreover, rising income inequality may increase pressure to focus government policies on redistribution at the expense of growth (Persson and Tabellini, 2000).

Fortunately, the resources-to-cash scheme and higher employment during the mining boom has also contributed to reduce the income inequality in Mongolia. For instance, income inequality measured by the Gini coefficient and the ratio of share of consumption expenditure of the top decile to that of the bottom decile decreased during the period 2008-2010 years and since then has stabilized. It should also be noted that income inequality in Mongolia is not very extreme compared to other countries.

Overall, absolute poverty has significantly declined during the 2010-12 mining boom mainly because of the direct cash-transfer scheme. Moreover, Gini coefficients suggest that income inequality has been slightly reduced in the beginning of the boom. However, the cash-transfer scheme was not a good example of sustainable social policy as it accelerates the boom-bust cycle and results in a greater threat to fiscal sustainability. Though these results show general overview about dynamics of poverty and inequality, they do not provide information about growth inclusiveness.

### 3. The methodology: The growth incidence curve

A dynamic measure of growth inclusiveness can be derived from the growth incidence curve introduced by Ravallion and Chen (2003). Constructing the growth incidence curve is a methodology that shows how each percentile of households benefits from growth. Inclusive growth should simultaneously reduce poverty and inequality. Growth reduces poverty if the mean income of the poor rises. Growth reduces inequality if it helps to straighten the Lorenz curve, which plots the percentage of total income earned by various portions of the people when the people are ranked by the size of their incomes (Kireyev, 2013).

Ravallion and Chen (2003) show that income (or expenditure) of  $p$ -th percentile (ordered by the size of people's income) is as follows:

$$y_t(p) = F_t^{-1}(p) = L'_t(p)\mu_t \quad (y'_t(p) > 0) \quad (1)$$

where  $F_t(y)$  denotes the cumulative distribution function (CDF) of income (or expenditure), giving the number of the household with income less than  $y$  at date  $t$ ,  $F_t^{-1}(p)$  is inversion of the CDF at  $p$ -th percentile,  $L_t(p)$  is the Lorenz curve (with slope  $L'_t(p)$ ), letting  $p$  vary from zero to 100 and  $\mu_t$  is the mean income.

Comparing two dates,  $t - 1$  and  $t$ , the growth rate in income (or expenditure) of the  $p$ -th percentile is  $g_t(p) = [y_t(p)/y_{t-1}(p)] - 1$ . Consequently, the growth incidence curve, which shows variability of income (or expenditure) growth by the percentile of households, can be defined as:

$$g_t(p) = \frac{L'_t(p)}{L'_{t-1}(p)}(\gamma_t + 1) - 1 \quad (2)$$

where  $\gamma_t$  is the growth rate of mean income,  $\mu_t$ , and  $L'_t(p)$  is a slope of the Lorenz curve. From equation (2), it follows that

- $g_t(p) = \gamma_t$  for all  $p$  if  $L'_t(p) = L'_{t-1}(p)$ : growth at each percentile of the curve will be equal to the growth of mean income of the distribution, if the Lorenz curve doesn't change (inequality remains the same) over time.

- $g_t(p) > \gamma_t$  if  $L'_t(p) > L'_{t-1}(p)$  : growth at each percentile of the curve will be higher than the average growth of the distribution, if the slope of the Lorenz curve decreases over time.
- $g_t(p) < \gamma_t$  if  $L'_t(p) < L'_{t-1}(p)$  : growth at each percentile of the curve will be lower than the average growth of the distribution, if the slope of the Lorenz curve increases over time.
- The slope of the curve is positive (or negative) if  $g'_t(p) = \frac{L''_t(p)L'_{t-1}(p)}{L''_{t-1}(p)L'_t(p)} > 1$  (or  $< 1$ ).

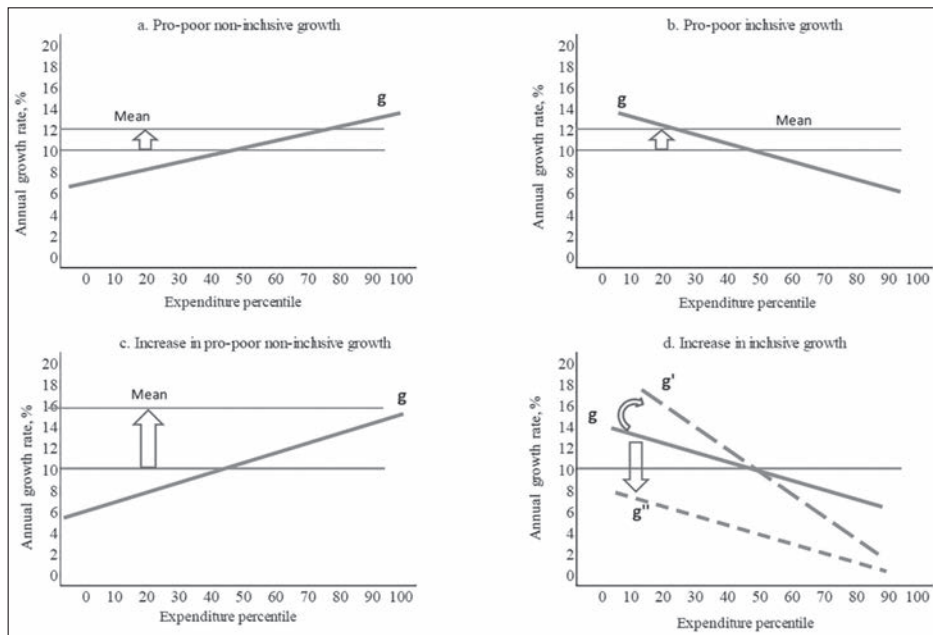
According to the definition of Ravallion and Chen (2003), the rate of pro-poor growth,  $g_t^{pp}$ , is the mean growth rate of the poor, given by

$$g_t^{pp} = \int_0^{H_t} g_t(p) dp / H_t \tag{3}$$

where  $H_t = F_t(z)$  is the headcount index of poverty (i.e., the number of households with income (or expenditure) less than  $z$ ), and  $z$  is the poverty line (noting that  $y_t(H_t) = z$ ). From equation (3), it follows that the rate of pro-poor growth will be equal to the average growth of the distribution ( $g_t^{pp} = \gamma_t$ ), if all incomes grow at the same rate.

As emphasized by Kireyev (2013), pro-poor and inclusive growth can be derived based on the incidence curve. For simplicity of illustration, the linear incidence curve is assumed in Figure 2, which illustrates stylized indicators for identifying inclusive growth.

**Figure 2. Stylized indicators for identifying inclusive growth**



Source: Extracted from Kireyev (2013)

Pro-poor and inclusive growth can be identified as follows: (a) pro-poor growth shifts the mean expenditure of the poor up while the slope of the curve is positive, suggesting that growth is not inclusive; (b) pro-poor inclusive growth shifts the mean expenditure up even if the incidence curve is negatively sloped; (c) accelerations of pro-poor growth just shift the median expenditure further up, while the slope of the incidence curve may remain positive, suggesting the growth remains non-inclusive; and (d) an increase in the inclusiveness of growth suggests that the incidence curve becomes negatively sloped ( $g$ ), the slope increases ( $g'$ ) and/or the whole

curve shifts to  $g''$  as inequality declines and  $L'_t(p) < L'_{t-1}(p)$ . In general, improvements in the degree of inclusiveness of growth would be signalled by the growth incidence curve changing the slope from positive to negative, and progress in poverty reduction would lead to the mean of the growth incidence curve and the curve itself moving up.

#### 4. Data

In the rest of this paper, we use the analytical framework of the previous section to build the growth incidence curves and to estimate the rate of pro-poor growth. In the estimations, we use the whole sample data of household socio-economic surveys (HSES) between 2008 and 2012. The HSES covers all 21 provinces and the capital of Ulaanbaatar. In order to obtain representative statistics for the country as a whole, we use sampling weights in the calculations<sup>6</sup>. Starting period is selected as 2007/08 since the HSES data has become comparable starting from this period onward. Though 5 years can be considered as short period for an impact assessment, the analysis based on the available data will provide us the overview of the studied issue. For expenditure, we use all non-durable consumption (which is classified by the NSO) only to minimize imputation problems association with the consumption of durables.

The data is directly collected from the NSO of Mongolia, and is transformed into real values using nationwide consumer price index (CPI). We focus on changes in poverty and inequality over the business cycle. For this purpose, the period 2007/08-2009 is referred to as the economic slowdown and recession period and the period 2010-2012 is called the booming period. We employ Stata for the distribution-based analysis of poverty and inequality, the calculation of Lorenz and growth incidence curves. Table 2 reports some statistics on the real consumption expenditure per person in Mongolia.

**Table 2. Some statistics of real household expenditure, at constant 2010 prices**

Year	Mean	Median	Coefficient of variation	Decile range	
				P10	P90
2007/08	144,055.1	110,972.5	0.89	42,817.6	116,149.2
2009	139,046.6	111,862.9	0.81	45,746.6	114,804.1
2010	143,703.6	116,629.3	0.77	45,177.6	117,811.8
2011	158,970.4	126,205.0	0.87	50,099.5	130,391.2
2012	181,487.7	148,291.4	0.75	57,710.0	153,108.0

Notes: Real expenditures are in MNT per person per month, at constant 2010 prices. The coefficient of variation is the standard deviation divided by the mean. Decile range means, in the case of P10, the average real expenditure below which the poorest 10 per cent of the population is located and in the case of P90, the value which the below 90 per cent of population is located.

Source: Authors' estimations, using HSES and CPI data from NSO

The mean exceeds the median for all years, reflecting the asymmetry of the distribution of the expenditure skewed towards higher levels of the expenditure. The growth rate of median expenditure has constantly increased over time. For instance, the growth between 2010 and 2012 is 27.1 per cent, which is considerably higher than the 5.1 per cent growth between 2007/08 and

2010. However, the mean expenditure has declined slightly during the economic slowdown, and since then, it has dramatically increased. The next column shows the coefficient of variation of real expenditure, indicating an 18.7 per cent decline in the dispersion of the distribution during the period 2007/08-2012. Decile range of the distribution suggests that the expenditure difference reduced in relative terms, but increased in absolute terms over time. Both values of P10 and P90 have increased, but the ratio of them has reduced because the proportional increases in the P10 values were much larger. Moreover, the difference between them has expanded, reflecting an increase in the spread of the distribution. The average expenditure of the population below 90 per cent is lower than the average consumption expenditure and this indicates that the top decile consumption expenditure is much higher than the average. The top decile's consumption is 3.4 times higher than that of the bottom 90 per cent of population.

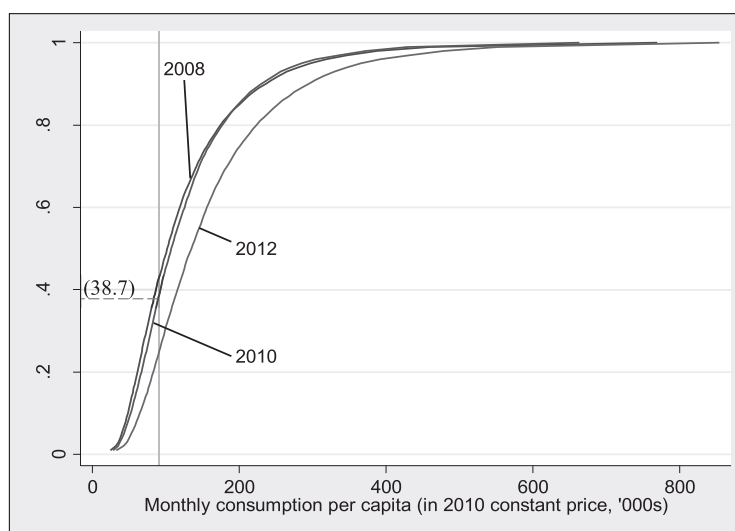
## 5. Results

In this section, we analyse the growth inclusiveness using the distribution-based analysis of poverty and inequality, growth incidence curves and estimates of pro-poor growth.

### 5.1 The distribution-based analysis of poverty and inequality

We begin by constructing the CDF of expenditure per capita,  $F_t(y)$ . Figure 3 shows the CDFs for 2007/08, 2010 and 2012, along with the poverty line in 2010.

**Figure 3. CDFs of household consumption per capita for 2007/08, 2010 and 2012**



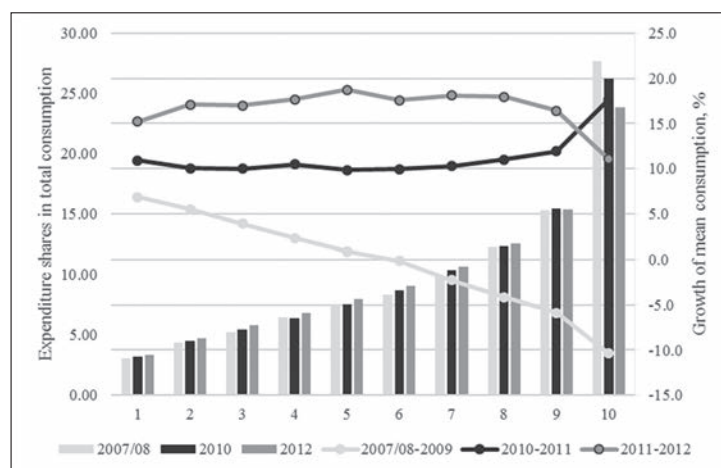
Source: Author's calculation using HSES data, NSO



Left-half of the CDFs has shifted to right-hand side over time, indicating that the absolute poverty reduced. The intersection of the poverty line with the cumulative density function provides the poverty incidence for 2010<sup>7</sup>, which is 38.7 per cent. When we use a universal for each year, the poverty incidence is also closer to the official estimate for 2012, but not for 2007/08.

Figure 4 shows the average growth rates of real expenditure per capita (lines with marker, right axis) and consumption expenditure shares by deciles (bar graphs, left axis).

**Figure 4. Growth rates of mean consumption and mean expenditure shares in total consumption by deciles, in per cent**



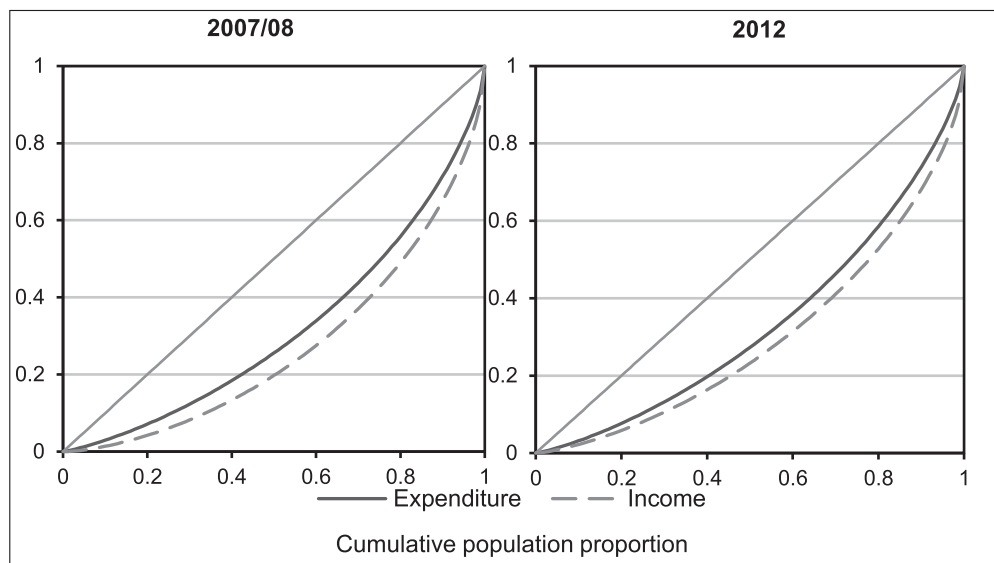
Source: Author's calculation using HSES data, NSO

The decile consumption shares suggest that the level of inequality remains high. The ratio of consumption expenditure in the top decile to the bottom decile of the population declined slightly between 2007/08 and 2012 from 9.2 to 7.2, suggesting that the richest consume on average 7-9 times more than the poorest. The consumption share for the richest has reduced for the period 2007/08-2012, and the consumption share has been transmitted to the middle class (from 4 to 8 deciles). However, the top two deciles of the population still consume about half the goods and services (roughly the same amount as the eight bottom deciles of the population), suggesting a substantial level of income disparity and inequality in the country.

Consumption expenditure of the top three deciles has been reduced during the recession period of 2007/08-2009. However, in the years of mining boom, all deciles have increased their consumption expenditures, and the increase in the consumption expenditure of the richest decile was the highest on average compared to others. The high growth rate of consumption expenditure for the six bottom deciles in both recession and boom periods can be partly explained by the cash transfer scheme.

## 5.2 The Lorenz curves

The Lorenz curve illustrates income (or expenditure) shares of each percentile group of population receives (or spends), and indicates higher level of inequality when the curve further bowed out from the diagonal. Figure 5 displays the Lorenz curves for 2007/08 and 2012, which are calculated in terms of both income and expenditure.

**Figure 5. Lorentz curves for 2007/08 and 2012**

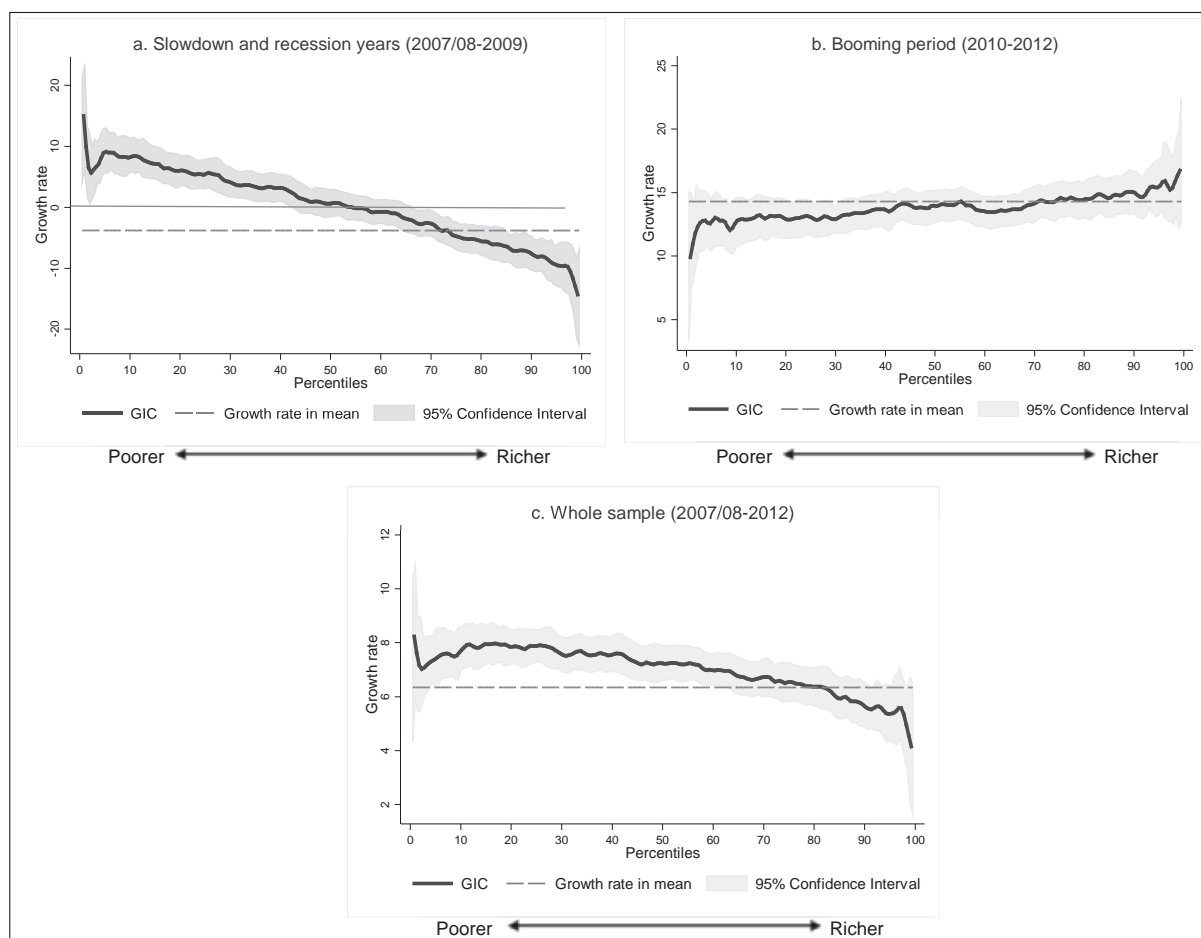
Source: Author's calculation using HSES data, NSO

The Lorentz curves suggest that income inequality is higher than consumption expenditure inequality in Mongolia. The Lorentz curve has shifted to left-hand side between 2007/08 and 2012, suggesting that inequality, measured in terms of expenditure shares that every percentile of people spends, has declined. However, there is no improvement for the consumption share of the bottom 20 per cent of population. The reduction in inequality is mainly driven by the rise in the consumption shares of the middle class. The curve remains at almost same position for 2010 and 2012, indicating that the inequality has not considerably changed during the booming years.

### 5.3 Growth incidence curves

We construct the growth incidence curves, showing the annualized growth rate of consumption expenditure for every percentile of expenditure distribution. The curves allow us to assess how consumption at each percentile changes over time. The part of the curve above zero points at the deciles implies that the people at the deciles benefit from the growth.

Figure 6 shows the growth incidence curves, along with growth rate in mean consumption and mean growth rate of the population.

**Figure 6. Growth incidence curves for total population, 2007/08-2012**

Source: Author's calculations using the data of HSES, NSO, Mongolia

Though the growth incidence curves provide different signals on distributional shifts, they confirm that people in the bottom and middle of the consumption distribution have been benefited from the high economic growth in recent years. Figure 6a shows that the growth rate of mean consumption expenditure per capita was negative, implying that people experienced a decline in their consumption on average during the slowdown and recession period of 2007/08-2009. However, the growth incidence curve is negatively sloped, suggesting the decrease in inequality during this period. For instance, consumption growth rates of the poorer deciles (up to 5<sup>th</sup> deciles) were positive while the growth rate of the richer deciles (from the 6<sup>th</sup> to 10<sup>th</sup> deciles) was negative at the significance level of 5 per cent. In particular, the richest decile's consumption has decreased by more than 15 per cent.

During the booming years (Figure 6b), all groups have benefited from high economic growth, and the mean of the growth incidence curve is very high (around 14 per cent), confirming the decline in poverty. The curve has a slightly positive slope, suggesting that the high growth was not inclusive. However, an overall change in inequality is very small as the growth rates in percentiles are equal to each other (as well as to the mean growth rate) at the significance level of 5 per cent.

On average for 2007/08-2012 (Figure 6c), all groups have experienced positive growth in their consumptions, and the high growth in the poorer deciles confirms the decline in poverty.

The low middle class (from 10<sup>th</sup> to 50<sup>th</sup> deciles) experienced a relatively high growth in their consumptions, which is above the mean growth and the growth in the mean consumption at the significance level of 5 per cent. The growth incidence curve has a negative slope, indicating that the economic growth was generally pro-poor in this period. However, there is no improvement in the degree of inclusiveness of growth over time as the growth incidence curve changing the slope from negative (in the slowdown period) to positive (in the booming period).

#### 5.4 Estimates of the rate of pro-poor growth

This section attempts to examine whether the recent economic growth has been pro-poor. Table 3 summarises results of growth calculations, including the rate of pro-poor growth proposed by Ravallion and Chen (2003) for both slowdown and boom periods. All results are calculations of annualized growth rates per capita. The first row shows the growth rates of mean expenditure for the whole population, and the second row presents the growth of median consumption expenditure. The next rows show the mean of the growth rates of expenditure for the whole population (row 3) and the population initially below the poverty line (row 4). In calculating the mean growth rate for the poor with discrete data, the poor is defined as those living below the poverty line at the initial period  $t - 1$ . Thus, the measure can be interpreted as the mean growth rate for the poorest  $H_{t-1}$ %. For this purpose, it is selected as  $H_{t-1} = 35.2\%$  for the period 2007/08-2009 and  $H_{t-1} = 38.7\%$  for the period 2010-2012, which are respectively the poverty headcount ratios in the initial year of the relevant periods. For comparison, the last row shows the growth rate of the real GDP per capita.

**Table 3. Rates of pro-poor growth, constant 2010 prices, per cent, per person, per year**

Growth indicators	Slowdown 2007/08- 2009	Boom 2010-2012	Whole sample 2007/08- 2012
Growth rate of mean expenditure per capita	-3.82	14.30	6.34
Growth rate of median expenditure per capita	0.57	13.95	7.21
Mean growth rate of expenditure per capita	0.34	13.78	7.01
Mean growth rate of expenditure per capita of the poor ( <i>Pro-poor growth</i> )	6.44	12.83	7.66
Growth rate of real GDP per capita	2.31	13.07	7.05

Source: Author's calculations using the data of HSES, NSO, Mongolia

Differences in the growth rates are statistically significant at the 5 per cent level in the slowdown period, confirming that the inequality has been reduced between 2007/08 and 2009. In this period, though real GDP per capita increased at 2.3 per cent on average, the growth rate of mean consumption was negative. However, consumption expenditures for the poor group of the population (up to 50<sup>th</sup> percentile) have increased in the period. In general, the growth has been pro-poor as the pro-poor growth rate of 6.44 is greater than all other measures of growth rate in the consumption expenditure. The pro-poor growth is higher than the growth of real GDP per capita, implying the poorer benefited more from the growth.

For the booming period, the growth rates are closer to each other (i.e., difference is not statistically significant at the 5 per cent level), but represent a slight increase in inequality. The growth rate of mean expenditure (14.3 per cent) is higher than the pro-poor growth rate of

expenditure (12.8 per cent), implying that the growth was not pro-poor enough in this period. According to growth rates of the whole sample, it seems that the growth has been pro-poor. However, the growth was pro-poor during the slowdown period, but not during the booming period.

## 6. Conclusion

Mongolia has achieved impressive economic growth over the past ten years. The economy has grown at an average annual rate of 8 per cent on the back of a mining boom since 2000. This paper has examined the economic growth performance from the perspective of its poverty-reducing and distributional characteristics.

The main findings are as follows. First, absolute poverty in Mongolia has fallen in the period 2007/08-2012, and poverty reduction has accelerated in recent boom years. The cash transfer program has played an important role in the poverty reduction. Second, the high economic growth seems to have benefitted all people in the country. Inequality has fallen as the bottom and middle classes of the consumption distribution have benefited more than the richer group. However, the reduction in inequality has stagnated during the economic boom, and there still remains a substantial level of income disparity in the country. For instance, the top two deciles of the population consume about half the goods and services, which is roughly the same amount as the bottom eight deciles of the population. Third, the poorer people have not suffered (in terms of their real consumption) during the economic slowdown period due to safety net programs of the government, including the cash transfer program, while the richer people have been more vulnerable to the economic condition. Finally, even though, in general, growth has been pro-poor for the period of our analysis. However, there is no improvement in the degree of inclusiveness of growth over time as the GIC changing the slope from negative (in the slowdown period) to positive (in the booming period). There is evidence that the rich benefits more from the growth in the booming period.

Though the commodity-based high growth has helped to reduce poverty and inequality, it was not sustainable, equitable and inclusive enough to benefit all in the society. Thus, policy makers need to think about life after the mining boom. Sustaining overall economic growth is a precondition for further poverty reduction and enhancing inclusiveness of the growth. Well-designed policies that stimulate growth and reduce inequality are also important to promoting inclusiveness. In particular, attention should be given to the distributional dimension of growth, and measures should target at raising incomes of people in the bottom deciles of the distribution relative to the average income. To this end, reforms are needed to improve the management of existing social welfare programs in Mongolia.

The analysis conducted in the paper should be constantly updated using more recent data in order to enhance the relevance and significance of the analysis in the policy making.

## Acknowledgment

We greatly thank Kaliappa Kalirajan (ANU), Raghendra Jha (ANU), Boldbaatar Dagva (BOM) and Tuvshintugs Batdelger (NUM), and our colleagues at the Australian National University (ANU), the Bank of

Mongolia (BOM) and the National University of Mongolia (NUM) for their helpful comments and advice.

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- <sup>1</sup> There are three main measures of pro-poor growth developed by Kakwani and Pernia (2000), Ravallion and Chen (2003), and Son (2004). Kakwani and Pernia (2000) and Son (2004) definitions are relative measures of pro-poor growth while Ravallion and Chen (2003) measure is the absolute one. In this paper, we use Ravallion and Chen (2003) definition stating that pro-poor growth is growth which reduces poverty.
- <sup>2</sup> ‘Growth incidence curve’ is also a useful tool to analyse pro-poor growth as it shows the impacts of aggregate economic growth over a wide range of the distribution.
- <sup>3</sup> The NSO updated the consumption basket to obtain comparable results from 2002/03 and 2007/08 surveys. This effort was for getting a more accurate poverty measure while the usage of new poverty line without adjusting the previous one makes it impossible to compare the estimates.
- <sup>4</sup> The poverty estimates in 1995 and 1998 are incomparable with other years because of differences in classifications, definitions, coverage, methodology and sampling error FIDE (1999).
- <sup>5</sup> There are some weaknesses in the current programs, including limited beneficiary targeting and programs’ fragmentation. Moreover, there is no clear link between transfer and the performance of the underlying mining assets, transfers are unsustainable if commodity prices decline or project investments are delayed, transfer itself causes high inflationary pressures, transfers do not necessarily address the deeper causes of inequality and the cash transfer increases the current consumption rather the saving for future generation.
- <sup>6</sup> The weight, which was assigned to each household, corresponds to the inverse of the selection probability and the sampling strategy into account.
- <sup>7</sup> The results of poverty incidence slightly differ from the official data on poverty headcount ratio because the official data uses region-specific poverty lines in the calculations. However, the presented result is similar for 2010 and 2012, but not for 2007/08.

## References

- ADB 2004. Enhancing the Fight against Poverty in Asia and the Pacific: The Poverty Reduction Strategy of the Asian Development Bank. Manila: Asian Development Bank.
- Brueckner, M. & Lederman, D. 2015. Effects of income inequality on aggregate output. Washington, D.C.: World Bank Group.
- Dabla-Norris, E., Kochhar, K., Suphaphiphat, N., Ricka, F. & Tsounta, E. 2015. Causes and consequences of income inequality: A global perspective. Washington, D.C.: International Monetary Fund.
- Dollar, D. & Kraay, A. 2002. Growth is good for the poor. *Journal of Economic Growth*, 7, 195-225.
- Eriksson, T. 2015. Inequality in Mongolia. Ulaanbaatar: UNDP.
- Isakova, A., Plekhanov, A. & Zettelmeyer, J. 2012. Managing Mongolia's Resource Boom. European Bank of Reconstruction and Development.
- Kireyev, A. 2013. Inclusive growth and inequality in Senegal. Washington, D.C.: International Monetary Fund.
- Klasen, S. 2008. Economic growth and poverty reduction: Measurement issues using income and non-income indicators. *World Development*, 36, 420-445.
- Kraay, A. 2006. When is growth pro-poor? Evidence from a panel of countries. *Journal of Development Economics*, 80, 198-227.
- Kuznets, S. 1955. Economic growth and income inequality. *The American Economic Review*, 45, 1-28.
- Marshall, R., Nixon, F. & Walters, B. 2008. Tracking economic policy and poverty outcomes in Mongolia. Brooks World Poverty Institute.

- Persson, T. & Tabellini, G. E. 2000. *Political Economics: Explaining Economic Policy*, Cambridge, Massachusetts, The MIT Press.
- Ravallion, M. 2001. Growth, inequality and poverty: Looking beyond averages. *World Development*, 29, 1803-1815.
- Ravallion, M. & Chen, S. 2003. Measuring pro-poor growth. *Economics Letters*, 78, 93-99.
- Smith, R. 2008. The Problem of Poverty in Mongolia: From Socialism to the Millennium Development Goals.
- Solow, R. 1956. A contribution to the theory of economic growth. *Quarterly Journal of Economics*, 70, 65-94.
- Warr, P. 2005. Pro-poor growth. *Asia-Pacific Economic Literature*, 19, 1-17.
- World Bank 2008. Progress in poverty reduction in Mongolia: Did poverty decline between 2002/03 and 2007/08? Washington, DC: World Bank.
- World Bank 2011. The impact of the financial crisis on poverty and income distribution in Mongolia. Washington, D.C.: World Bank.

# India-Mongolia Economic Relations: Current Status and Future Prospect

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## Abstract

*The long historical relation of India-Mongolia was translated to diplomatic relationship in 1955, after three decades of Mongolia's independence. With the India's Act East Policy, the relation with Mongolia plays a critical role towards India's association with Northeast Asian countries. The volume of India-Mongolia trade has been growing at a faster pace since last decade. However, it is under performed than its potential level. The paper indicates that India and Mongolia have strong trade potential in petroleum products, iron and steel products, cements, pharmaceuticals, minerals etc. India has potentiality to invest in diversified areas of trade and social sectors. Trade and investment will be enhanced by reducing barriers to trade and need to have stronger monetary policy and stable business environment. Mongolian government has shown their concern towards attracting foreign investment in different areas along with mining. The stronger bilateral relation will help two countries to unlock their trade and investment potential with more regional accessibility.*

Keywords: trade, investment, trade potentiality, trade barriers, India, Mongolia

JEL code: F13, F18

## 1. Introduction

India and Mongolia share a long historical and cultural bond. India and Mongolia have a strong strategic dimension, thus making the association imperative towards India's foreign policy. India's economic and regional integration with Southeast and East Asian nations was embarked by the adoption of Look East Policy in 1992. India has moved into the Look East Policy Phase II, which is also known as the Act East Policy (AEP). AEP is an effort to intensify India's engagement with Southeast and East Asian countries – economically, culturally and strategically. Mongolia is occupying an important space in India's AEP<sup>1</sup> as an important partner for India's rising footprints in the North East Asia and also an integral part in the Central Asian programmes.

The historical and cultural ties of the two countries were driven by Chinggis Khan's dynasty, flowed by the Buddhism and then through Silk route of Asian continent. In 1921, Mongolia witnessed independence from Chinese rules. Three decades later, the diplomatic relations between India and Mongolia were established in 1955. In 2015, India and Mongolia celebrated their 60 years of diplomatic relations. The occasion of the 60<sup>th</sup> anniversary was engraved by the visit of Mr. Narendra Modi, Prime minister of India to Mongolia and elevates the level of comprehensive partnership to strategic partnership.

Mongolia being a landlocked country relies heavily on foreign trade and investment. China and Russia account for a lion's share of Mongolia's trade and investment. The volume of India-Mongolia trade has also been growing at a faster pace in recent years. However, compared to its potential, current economic engagement is limited to trade in minerals only. The visit of the



Indian Prime Minister to Mongolia in 2015 has resulted in the emergence of new opportunities in bilateral relations between the two countries, which have never been explored in recent past.

In this paper we try to identify trends and opportunities of future economic cooperation between India and Mongolia. We also highlighted the barriers related to non-tariff measures and transportation that are the main obstacles to trade and investment between two countries.

In the course to analyse the bilateral relation, it was observed that there was no study done on India-Mongolia relation prior to the De and Pan (2017). They analyse India-Mongolia relation in very dimension to induce bilateral economic cooperation. Their study indicates Mongolia's world integration in terms of transportation, cooperation and also proposes recommendations to strengthen India-Mongolia strategic relation.

With limited source of information on these two-country relation, our study rely on the De and Pan (2017), joint statement release on the occasion of Prime Minister's visit in 2015 at Ulaanbaator, and has been benefitted from discussions with several experts and stockholders.

Rest of the paper is organised as follows. Section 2 analyses the trade relations between India and Mongolia. Investment scenario is discussed in Section 3, followed by presentation on trade obstacles that hinder trade between India and Mongolia in Section 4. Finally, conclusions are drawn in Section 5.

## **2. Trade Relations between India and Mongolia**

India, located in South Asia, and, Mongolia, located in North East - Central Asia, is having an aerial distance of 3330 km. between New Delhi and Ulaanbaatar. However, it is the long maritime distance between them, around 7000 km, makes the bilateral trade an expensive and non-competitive affair. Mongolia has 2.88 million people residing over 1.56 million sq. km – an area almost half of the size of India.<sup>2</sup> Mongolia is one of the least densely populated countries in the world, having a per capita income of US\$ 7487.84 (in PPP term), almost twice that of India's US\$ 3866.17.<sup>3</sup>

India and Mongolia are service-driven economy with falling agricultural share in GDP. India ranked 15<sup>th</sup> as an export destination to and 18<sup>th</sup> in import from Mongolia in 2015.<sup>4</sup> Mongolia's major trade share is occupied by its neighboring countries like China, Russia, Japan, Korea and EU, etc. With a less than US\$ 1 million trade before 2004, India's export to Mongolia was geared up in 2010 with US\$ 19.63 million (Table 1). Export from India to Mongolia increased to US\$ 8.26 million in 2015 with a peak of US\$ 42.06 million in 2012, whereas India's import from Mongolia witnessed a continuous fall till 2014 after reaching an all time peak of US\$ 21.77 million in 2011. In 2015, the bilateral trade volume was US\$ 12.31 million, where US\$ 8.26 million and US\$ 4.05 million were registered as India's export to and import from Mongolia, respectively. Bilateral trade between India and Mongolia is not only very low at the moment but also loosing the momentum.

**Table 1: Trends in India-Mongolia Bilateral Trade (US\$ million)**

Year	Indian Export to Mongolia	Indian Import from Mongolia	Total Trade
2005	1.21	1.27	2.48
2010	19.63	2.10	21.73
2015	8.26	4.05*	12.31
CAGR	21.17%	12.33%	17.39%

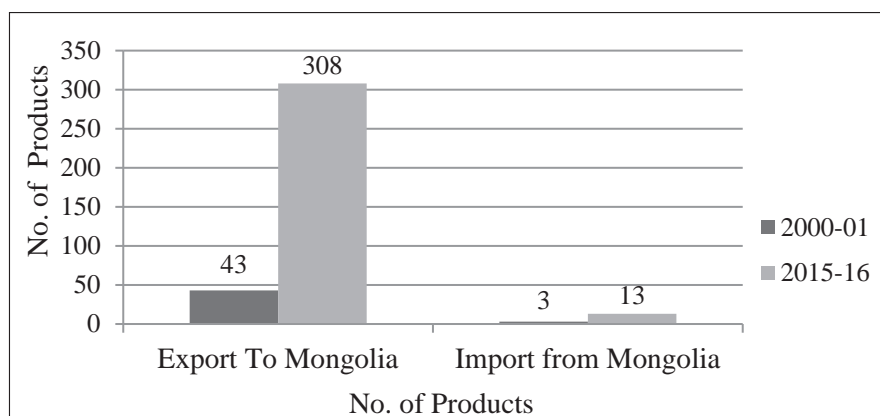
\* Estimated data

Source: Direction of Trade Statistics Yearbook (DOTS), IMF

## 2.1 Trade Composition

In 2000-01, Indian exports to Mongolia at HS 8-digit level were 43 items and increased to 308 items in 2015-16. While import from Mongolia registered only 13 items in 2015-16 at 8-digit level with marginally increased from 3 items of 2000-01 (Figure 1).

In 2015, the top 15 commodities that India exported to Mongolia accounted for 58 per cent of the total export to Mongolia (Table 2) and witnessed a compositional shift of export items form 2000-01. It was registered that top exporting 15 commodities in 2000-01 were contributed over 87 per cent of India's export to Mongolia, reflecting an increase in trade diversification over the last decade. Except vaccines for human medicine (HS 300220), India's top 15 export products at 6-digit HS level in 2015-16 were not those the country exported in 2000-01 to Mongolia. In 2015-16, pharmaceuticals were the main export item and contributed over 35 per cent of total exports to Mongolia. The other major export items in 2015-16 were medical instruments, motorcycle, rice and parts and electrical machinery.

**Figure 1. India's Trade with Mongolia: Number of Products Traded at 8-Digit HS Level**

Source: Calculated based on Export Import Data Bank, Ministry of Commerce and Industry, Government of India

**Table 2: Indian Exports to Mongolia at 6-Digit HS, 2015-16: Top 15 Products**

HS Code	Product Description	Export Value (US\$ million)
300220	Vaccines for human medicine	0.95
902221	Apparatus based on the use of X-rays, whether or not for medical, surgical, dental or veterinary uses, including radiography or radiotherapy apparatus :-- For other uses	0.56
100630	Semi-milled or wholly milled rice, whether or not polished or glazed	0.40
902214	Apparatus based on the use of X-rays, whether or not for medical, surgical, dental or veterinary uses, including radiography or radiotherapy apparatus :-- Other, for medical, surgical or veterinary uses	0.35
870322	Other vehicles, with spark-ignition internal combustion reciprocating piston engine :-- Of a cylinder capacity exceeding 1,000 cc but not exceeding 1,500 cc	0.25
300420	Medicaments containing other antibiotics and put up for retail sale	0.24
240399	Products of tobacco, substitute nes, extract, essences	0.22
300450	Other medicaments containing vitamins or other products of heading No. 29.36	0.14
848180	Taps, cocks, valves and similar appliances, nes (other appliances)	0.13
871120	With reciprocating internal combustion piston engine of a cylinder capacity exceeding 50 cc but not exceeding 250 cc	0.13
130232	Mucilages and thickeners, whether or not modified, derived from locust beans, locust bean seeds or guar seeds	0.12
330610	Dentrifrices	0.12
902300	Instruments, apparatus and models, designed for demonstrational purposes (for example, in education or exhibitions), unsuitable for other uses.	0.12
845891	Other lathes :-- Numerically controlled	0.11
	Total of above	5.64 (66.82)
	Total	8.44

Note: Data in parentheses presents share in total export.

Source: Export Import Data Bank, Ministry of Commerce and Industry, Government of India

**Table 3: Indian Imports from Mongolia at 6-Digit HS, 2015-16**

HS Code	Product Description	Import Value (US\$ million)
510211	Fine animal hair, not carded or combed	2.24
510129	Degreased wool nes, not carded, combed or carbonized	1.40
510119	Greasy, including fleece-washed wool :-- Other	0.29
271490	Bitumen and asphalt, asphaltites and asphaltic rocks	0.12
252921	Fluorspar :-- Containing by weight 97 % or less of calcium fluoride	0.10

253090	Mineral substances, nes	0.05
510111	Greasy, including fleece-washed wool :-- Shorn wool	0.05
510510	Carded wool	0.03
860900	Containers specially designed and equipped for carriage by one/more modes of transport	0.01
	Total	4.30

Source: Export Import Data Bank, Ministry of Commerce and Industry, Government of India

In compare with export, Indian imports from Mongolia have been driven mostly by wool (HS chapter 51), which had a share of 93 per cent in India's total imports from Mongolia in 2015-16 (Table 3). Imports of other products have been very negligible. Contrary to popular belief, India is yet to be the destination of Mongolia's major exports of copper, gold, coal, oil, and other resources.

Finally, potential of diversification of Indian exports to Mongolia can be judged based on the number of products exported between the two years (Figure 1). With an increasing export share, diversification opportunities exist in case of India's exports to Mongolia and vice versa.

## 2.2 Trade Indicators

Magnitude of bilateral trade depends on the potentiality and complementarity of both trading partners and it would also determine the future prospects of trade. The decision of right export market is based on the Trade Intensity Index (TII), and trade potential between the two countries can also be judged based on trade complementarity index (TCI). TII determines whether the value of trade between two countries is greater or smaller than the expected on the basis of their importance in the world trade. It is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner.<sup>5</sup> An index score of more than one indicates a bilateral trade flow that is larger than expected and vice versa, given the partner country's importance in world trade.

**Table 4: Trade Intensity Index (TII) for Mongolia and India, 2015**

Mongolia's export to India			India's export to Mongolia		
HS Code	Product Description	TII	HS Code	Product Description	TII
130190	Natural gums, resins, gum-resins, balsams and other natural oleoresins (excl. gum Arabic)	12.49	845891	Lathes; for removing metal, numerically controlled, other than horizontal lathes	718.19
710812	Gold (Including gold plated with platinum) unwrought or in semi manufactured forms, or in powder form	6.45	854230	Other monolithic integrated circuit	542.74
510129	Degreased wool, non-carbonized, neither carded nor combed (excl. shorn wool)	2.27	845730	Metal machines; multi-station transfer machines, for working metal	355.09

510530	Fine animal hair, carded or combed (excl. Wool)	2.17	847529	Machines; for manufacturing or hot working glass or glassware, not for making optical fibres and preforms thereof	297
510121	Wool, not carded/combed, degreased, not carbonised, shorn	1.03	284321	Silver compounds; silver nitrates	200.79

Source: Authors

Table 4 presents TII scores for Mongolia and India. It indicates that Mongolia has less intense trade relations with India with having only five products TII score greater than 1. These are natural gums (excl. gum Arabic), resins, gum-resins and oleoresins, gold and woolen products. On the other, India shows relatively intense trade relations with Mongolia on 130 products, which are having TII score greater than 1. The TII products of Indian export to Mongolia are more diversified, which includes machineries and equipments, organic and inorganic chemicals, base metal, papers, iron and steel etc.

**Table 5: Trade Complementarity Index (TCI) for 2015**

Reporter	Partner	TCI (%)
India	Mongolia	37.43
Mongolia	India	33.14

Source: Authors

TCI measures the degree of export pattern of one country matches the import pattern of another. An increasing trend of the index scores between two countries also provides some indication of the useful information on prospects for bilateral trade. TCI is a type of overlap index. A high degree of complementarity is assumed to indicate more favourable prospects for a successful trade arrangement. TCI takes a value between 0 and 100, with zero indicating no similar goods are exported or imported by both the trading partners. While 100 indicates a perfectly match of export and import of the partner countries. The calculated TCI scores are presented in Table 5 for both India and Mongolia as bilateral trade partners. Given the aggregation bias, the TCI scores indicate that Indian has relatively higher trade complementarity in compare to Mongolia.

### 2.3 Trade Potentiality

The indicative potential trade has been computed for each 6-digit product. The supply is represented by the exports of the selected country to the world. The demand is represented by the imports of the selected partner country from the world. The minimum between the two from which the bilateral trade is subtracted is the indicative potential trade.

**Table 6: Bilateral Export Potential, 2015 (US\$ million)**

	Actual	Potential
India's export to Mongolia	8.23	3,788.37
Mongolia's export to India	3.80	4,665.48

Source: Authors

In a formal way, the unrealised trade potential for any commodity between India and Mongolia is given by  $[\text{Min}(Y_i, X_j) - Z_{ij}]$ , where  $Y_i$ ,  $X_j$  and  $Z_{ij}$  are country  $i$ 's global exports, country  $j$ 's global imports and existing trade between the country  $i$  (exporter) and country  $j$  (importer), respectively. Products having trade potential were identified as those with (a) adequate demand in the importing country, and (b) adequate supply capabilities in the exporting country. The caveat is that the estimates of trade potential have to be treated with caution as they are merely indicative of the untapped trade possibilities. The estimate of trade potential is the maximum possible trade that two countries can have if they sourced all items from each other which they sourced from the rest of the world, *ceteris paribus*. The estimates also vary depending on the year of reference.

**Table 7: Trade Potential: Mongolian Exports to India, 2015 (US\$ million)**

HS Code	Product Description	Indicative export potential
260300	Copper ores and concentrates	2280.135
270112	Bituminous coal, whether or not pulverised, non-agglomerated	534.589
270900	Petroleum oils and oils obtained from bituminous minerals, crude	387.217
710813	Gold, incl. gold plated with platinum, in semi-manufactured forms, for non-monetary purposes	332.939
260111	Non-agglomerated iron ores and concentrates (excluding roasted iron pyrites)	227.2
740311	Copper, refined, in the form of cathodes and sections of cathodes	66.675
270119	Coal, whether or not pulverised, non-agglomerated (excluding anthracite and bituminous coal)	20.269
80290	Nuts, fresh or dried, whether or not shelled or peeled (excluding coconuts, Brazil nuts, cashew ...)	14.564
261310	Roasted molybdenum ores and concentrates	14.521
410510	Skins of sheep or lambs, in the wet state "incl. wet-blue", tanned, without wool on, whether ...	12.274
	Total Trade	4665.48 (3.79)

Note: Data in parentheses is current value of trade.

Source: Authors

**Table 8: Trade Potential: Indian Exports to Mongolia, 2015 (US\$ million)**

HS Code	Product Description	Indicative export potential
271019	Other petroleum oils and preparations	428.28
271012	Light petroleum oils and preparations	278.46
240220	Cigarettes, containing tobacco	52.24
252329	Portland cement (excluding white, whether or not artificially coloured)	44.65
732591	Grinding balls and similar articles for mills, cast (excluding such articles of non-malleable ...	41.33
300490	Medicaments nes, in dosage	40.84 (1.66)
847490	Parts of machinery for working mineral substances of heading 8474, n.e.s.	37.05
870323	Motor cars and other motor vehicles principally designed for the transport of persons, incl. ...	34.45
210690	Food preparations, n.e.s.	31.19
842952	Mechanical shovels, excavators and shovel loaders; with a 360 degree revolving super structure	29.75
	Total Trade	3788.36 (8.22)

Note: Data in parentheses is current value of trade.

Source: Authors

The calculated trade potentials, reported in Tables 6 to 8, show that the untapped bilateral trade potential was about US\$ 8.45 billion in 2015 against the current trade of US\$ 12.03 million (Table 6), of which Mongolian export potential to India accounts for US\$ 4.66 billion, and Indian export potential to Mongolia is US\$ 3.78 billion. At the product level, Mongolian export potential lies mostly in minerals (copper, coal, gold, zinc, etc.), whereas Indian export potential comprises petroleum products, iron and steel products, cements, pharmaceuticals, etc. With an immense bilateral trade potentiality, India and Mongolia should encourage more bilateral trade by reducing barriers of trade.

### 3. Indian Investments: Trends and Opportunities

In the investment context India contributes US\$ 8 million FDI and occupies 13th rank as Mongolia's FDI partner in 2015. Major investors are the EU (US\$ 4.77 billion) and China (US\$ 2.62 billion), which together contribute about 60 per cent of total FDI inflows to Mongolia. Around 80 per cent of the FDI inflows have been in the mining sector. During the period 2001 to 2012, Indian FDI in Mongolia was only US\$ 8 million (Table 9), which is very negligible amount. Indian FDI has been limited to only financial, insurance and business services (Table 10). As on December 2015, there are about 20 Indian enterprises carrying out their business activities in Mongolia, distributed largely among information and communication technology, service, tourism, and energy. India has already signed the bilateral investment treaty (BIT)

and double taxation avoidance agreement (DTAA) with Mongolia to root the investment opportunities.

**Table 9: Trends in FDI Inflows to Mongolia by Country (US\$ million)**

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
EU	7	6	6	8	14	14	27	14	70	271	2,362	1,969	4,768
China	50	140	47	113	228	172	340	498	613	176	1,015	243	2,620
Singapore				1	5	1	1	32	9	31	403	227	710
Russia	6	2	3	3	7	12	40	4	6	2	58	130	273
Australia	1	1			12			3	1	2	82	96	198
USA	9	10	7	9	6	37	4	6	3	14	127	63	295
Korea, Rep.			6	7	19	16	23	42	32	39	55	54	293
Japan	2	3	7	5	6	5	2	47	6	7	21	34	145
Canada		6	120	43	2	72	0	3	1	148	72	19	486
Malaysia		1	2	1	3	1		5			3	2	18
Philippines												2	2
Kazakhstan							12			2		1	2
New Zealand					1			2	1		1		5
Thailand											3		3
Vietnam						20	1	1		1	1		24
India				1			5	1	1				8
World	132	187	206	235	317	367	500	709	801	1,026	4,986	3,199	3,454

Source: UNCTAD

### 3.1 Potential Sectors of Investment in Mongolia

Foreign investment is important to the economy for exploitation of minerals as well as for development of other sectors. As noted earlier, FDI has declined in the recent years in Mongolia. To some extent, this was due to the falling commodity prices of Copper and Coal and uncertainty about the 2012 Law on the Regulation of Foreign Investment in Business Entities Operating in Sectors of Strategic Importance. To address these concerns and to improve the investment climate, the 2012 Law and the Foreign Investment Law of 1993 were replaced by the Investment Law of 2013 (which applies to both foreign and domestic investment). According to MacDougall (2015) “Mongolia has introduced several positive changes in mining and investment legislation. This has included a renewed investment law, a new mining law and policy, and new governing bodies aimed at attracting further foreign investment into the country.” The simplified investment and registration requirements along with greater legal precision including the definition of a foreign-invested entity and a foreign government-owned legal entity have strengthened the foundation of the Mongolian economy and the FDI environment.



**Table 10: Selected FDI Outflows from India to Mongolia**

Year	Name of the Indian Party	Name of the JV/WOS	Major Activity	Total (US\$ million)
2012 August	Intercontinental Consultants & Technocrats Pvt. Ltd.	ICT Sain Consulting LLC	Financial, Insurance, Real Estate and Business Services	0.101
2013 January	Vintage Rides Pvt. Ltd.	Vintage Rides and Tours LLC	Transport, Storage and Communication Services	0.100
2014 January	Intercontinental Consultants & Technocrats Pvt. Ltd.	ICT Sain Consulting LLC	Financial, Insurance and Business Services	0.025
2014 June	Intercontinental Consultants & Technocrats Pvt. Ltd.	ICT Sain Consulting LLC	Financial, Insurance and Business Services	0.042

Source: Reserve Bank of India (RBI)

Mongolian government welcomes foreign investments in the areas of mining, agriculture, construction, education and science, energy, transportation, industry, population development, social securities, culture, sports, tourism and health.<sup>6</sup> These are the sectors where Indian companies have been investing in the world,<sup>7</sup> and Mongolia should invite Indian investments in these sectors with attractive package of incentives. The Mongolian government took the new investment law<sup>8</sup> in 2013 to make the country more investment friendly destinations for foreign investors. The law is intended to improve the investment climate and promote fiscal stabilisation including, the Fiscal Stability Law, the Integrated Budget Law, and the Social Welfare Law. These legislative changes, along with the steps taken by the Bank of Mongolia (the central bank) to stabilise the national currency, control inflation, and improve regulation of the commercial banks, should help to improve foreign and domestic investment.

**Table 11: Ranking on Investment Environment, 2016**

Indicator	Mongolia	India
Ease of Doing Business Rank	64	130
Starting a Business	36	155
Dealing with Construction Permits	29	185
Getting Electricity	137	26
Registering Property	46	138
Getting Credit	62	44
Protecting Minority Investors	26	13
Paying Taxes	35	172
Trading across Borders	103	143
Enforcing Contracts	85	172
Resolving Insolvency	91	136

Source: Doing Business Data, World Bank

Table 11 shows that among 190 countries Mongolia perform better than India in terms of ease of doing business rank.<sup>9</sup> All indicators reveal that Mongolia is more focused in attracting foreign investors. The Mongolian government has initiated to create an attractive environment for FDI and trade through an open policy and ensuring public sector efficiency, legal certainty and sound governance.

### 3.2 India's Approaches towards Promoting Investment in Mongolia

Mongolia has untapped natural resources and minerals reserve, which promise an unprecedented growth potential. Indian government also extended their assistance towards Indian investors to invest in Mongolia. Indian companies investing in Mongolia get support from the Reserve Bank of India (RBI).<sup>10</sup> For example, the RBI has relaxed the norms for domestic companies investing abroad by doing away with the ceiling for raising funds through pledge of shares, domestic and overseas assets. In addition to joint ventures (JVs) and wholly-owned subsidiaries (WOSs), the RBI has announced similar concessions for pledging of shares in case of step down subsidiary. RBI has also liberalised/rationalised guidelines for foreign investments abroad by Indian companies. It raised the annual overseas investment ceiling to US\$ 125,000 from US\$ 75,000 to establish JVs and WOSs. The RBI has relaxed norms for foreign investment by Indian companies by raising the borrowing limit. The financial commitment to be undertaken by an Indian party will be limited to within 400 per cent, compared to the earlier 100 per cent of the company's net worth. The RBI has also allowed limited liability partnership (LLP) firms to undertake financial commitment to/on behalf of JVs or WOSs of Indian companies abroad. Indian investment in Mongolia would be one of the foremost steps to enter into the Northeast Asian market, and, therefore, it should be facilitated.

## 4. Barriers to Trade

The substantial natural and mineral resource rich Mongolia attracts foreign investors, although it has some obstacles that hinder Mongolia's trade prospect.

### 4.1 Tariff and Non-Tariff Barriers

In acceding to the WTO in 1997, Mongolia bound all its tariffs, most of them at 20 per cent, although the applied rate is, in most cases, much lower. In case of Indian export to Mongolia, MFN applied tariff in Mongolia has slightly increased from 4.55 per cent in 2000 to 4.91 per cent in 2013 with the rise of maximum rate from 5 per cent in 2000 to 15 per cent in 2013 (Table 12). Along with the rise of overall trade during 2000 and 2013, India has witnessed higher dutiable imports in Mongolia. Ratios of free lines and dutiable lines or free imports and dutiable imports also support this trend. In other words, India's export has been witnessing relatively higher tariff barrier in Mongolia. We need to identify how much of applied tariff exceed bound rate, which, if found, may be corrected.

**Table 12: Trends in Mongolia's Tariff on Imports from India: 2000 and 2013**

Tariff Year	Trade Year	Variables	Duty Type	
			BND	MFN
2000	2000	Simple Average, %	16.35	4.55
2013	2013	Simple Average, %	18.79	4.91
2000	2000	Maximum Rate, %	30.00	5.00
2013	2013	Maximum Rate, %	30.00	15.00
2000	2000	Number of Free Lines	45	7
2013	2013	Number of Free Lines	26	11
2000	2000	Number of Dutiable Lines	102	71
2013	2013	Number of Dutiable Lines	579	647
2000	2000	Number of Total Lines	147	78
2013	2013	Number of Total Lines	605	658
2000	2000	Free Imports in Million US\$	0.000	0.308
2013	2013	Free Imports in Million US\$	3.739	0.232
2000	2000	Dutiable Imports in Million US\$	1.762	1.454
2013	2013	Dutiable Imports in Million US\$	30.541	34.049
2000	2000	Imports Value in Million US\$	1.762	1.762
2013	2013	Imports Value in Million US\$	34.281	34.281
2000	2000	Ratio (Free lines/Dutiable Lines), %	30.612	8.974
2013	2013	Ratio (Free lines/Dutiable Lines), %	4.298	1.672
2000	2000	Ratio (Free imports/Dutiable imports), %	0.000	17.468
2013	2013	Ratio (Free imports/Dutiable imports), %	10.908	0.675

Note: Most Favoured Nation (MFN) and Bound Tariff (BND).

Source: Calculated based on WITS

On the other, Indian MFN applied tariff on imports from Mongolia have been drastically reduced from 27.50 per cent in 2000 to 7.36 per cent in 2013, showing India has gradually opened up the market for Mongolian exports (Table 13). The largest proportion of tariff lines (71.7 per cent) has been subject to a tariff rate between 5 per cent and 10 per cent, while 10.7 per cent of lines were subject to a tariff rate greater than zero but lower than 5 per cent. India has non-ad valorem rates for several tariff lines. India's bound tariff levels are higher than the applied rates (MFN) and so are Mongolia's.<sup>11</sup> These gaps allow both the governments to modify tariff rates in response to domestic and international market conditions.

**Table 13: India's Tariff on Imports from Mongolia**

Tariff Year	Trade Year	Variables	Duty Type	
			BND	MFN
2000	2000	Simple Average, %	61.00	27.50
2013	2013	Simple Average, %	36.52	7.36
2000	2000	Maximum Rate, %	100.00	38.50

2013	2013	Maximum Rate, %	100.00	10.00
2000	2000	Number of Free Lines	0	0
2013	2013	Number of Free Lines	2	8
2000	2000	Number of Dutiable Lines	5	6
2013	2013	Number of Dutiable Lines	11	22
2000	2000	Number of Total Lines	6	6
2013	2013	Number of Total Lines	14	30
2000	2000	Free Imports in Million US\$	0.000	0.000
2013	2013	Free Imports in Million US\$	0.019	0.019
2000	2000	Dutiable Imports in Million US\$	0.211	0.211
2013	2013	Dutiable Imports in Million US\$	8.745	8.745
2000	2000	Imports Value in Million US\$	0.211	0.211
2013	2013	Imports Value in Million US\$	8.764	8.764
2000	2000	Ratio (Free lines/Total Lines), %	0.000	0.000
2013	2013	Ratio (Free lines/Total Lines), %	14.286	26.667
2000	2000	Ratio (Free imports/Total imports), %	0.000	0.000
2013	2013	Ratio (Free imports/Total imports), %	0.222	0.222

Note: Most Favoured Nation (MFN) and Bound Tariff (BND).  
Source: Calculated based on WITS

What follows both the countries have to rationalize the tariff barriers against each other's trade. As imports from India have higher spillover effect on the Mongolian economy, Mongolia may consider more free imports from India, particularly in intermediate and parts and components. Ultimately, this would lead to facilitate value chains aiming to serve the North East Asian market. At the same time, NTMs also have to be rationalised and/or removed.

Indian exporters face a series of trade restrictiveness in Mongolian market and vice versa. Mongolia has NTMs in force related to health safety and hygiene, standardization and conformity assessment, labelling and certification, etc. India and Mongolia have several NTMs – conformity assessment measures related to food safety such as certification, testing and inspection, and quarantine, and measures such as labelling, standards on technical specifications and quality requirements, and other measures protecting the environment. Harmonisation and/or streamlining the NTMs would be critical to bilateral trade as well as value chains. Enhancing the regulatory environment in goods sector is essential to eliminate unnecessary regulatory divergences that can only restrict the trade flows at bilateral level (India and Mongolia) or regional level (India and North East Asia).

#### 4.2 Transportation

Mongolia is a land-locked country in the Northeast Asia bordering China in the south and Russian in the north. Thus, transportation plays a vital role to the development of Mongolian economy. The Logistic Performance Index (LPI) for 2016 reveals that Mongolia is much behind in all trade logistics areas (Table 14). Mongolia should emphasize on building infrastructure to

facilitate trade with other countries. The Mongolian transport sector covers air, road, and rail transport modes, and its international trade is conducted through ports of China and Russia.

**Table 14: Logistic Performance Index, 2016**

Indicator	Rank	Score
LPI Rank	108	2.51
Customs	100	2.39
Infrastructure	140	2.05
International shipments	129	2.37
Logistics competence	129	2.31
Tracking & tracing	108	2.47
Timeliness	65	3.4

Note: Lower rank and higher score indicates well performance and vice versa.

Source: The World Bank

Main international transportation link with the sea gates of China and Russia are as follows:

- Through Xingang port of China shipments to (from) South Asia, Middle East, Oceania, North and Central Asia, North, Central and South America and Europe.
- Through Vladivostok port of Russia shipments to (from) South Asia, Central and South America and Europe.
- Through St. Petersburg port of Russia shipments to (from) Europe and America.
- Through Novorossiysk port of Russia shipments to (from) Middle East and CIS countries.

Most of Mongolia's trade has been carried through Xingang port of China. Xingang port is the closest open sea gate to Mongolia and is directly connected to Mongolian border station both by rail and road. The Trans-Siberian Railroad of Russia is another important route that connects other Russian sea ports with Mongolia. The Trans-Mongolian Railway is the main rail link between Mongolia and its neighbours. There are other paved roads that connecting Ulaanbaatar with the Russian and Chinese border. Other than rail, road Mongolia has single international airport located at Ulaanbaatar, which is known as Chinggis Khaan International Airport. Mongolia is also being associated with China –Mongolia-Russia Economic Corridor and CAREC Corridor to enhance regional trade and cooperation.

India and Mongolia have long maritime distance between them – around 7000 km with transit at Tianjin Port in China that makes the bilateral trade an expensive affair. At present, it takes over 45 days for a container to reach Ulaanbaatar from New Delhi.<sup>12</sup> In other words, the connectivity constraints had slowed down the process of economic interactions between the two countries. Connectivity constraints prevent Mongolia to diversify exports, select more trade partners, to mention a few. High trade costs arising from low accessibility to seaports negate its strategic location as gateway to Northeast and Central Asia.<sup>13</sup>

### 4.3 Others Barriers

The role of financial institutes and banks are one of the important pillars to create business environment and attract FDI to a country. According to Central bank of Mongolia, it had only 10 operational banks with 106 branches in 2014.<sup>14</sup> The World Bank has noted that Mongolia's banking sector is still remained in tight funding conditions with deterioration in its asset quality.<sup>15</sup> Mongolian government needs to take strong monetary policy and facilitates banking and other financial services to drive foreign investment in the country.

Mongolia has an evolving telecommunication system, mainly developed in urban areas whereas, least densely populated rural areas are still lagging behind it. Mongolia need well connected telecommunication base to trigger the FDI.

The lack of transparency and consistency in regulations create an obstacles to trading with and doing business in Mongolia. The new elected government of Mongolia has given number promises to uphold business environment and stated economic priorities to attract FDI, undertake economic reforms, and reverse the economic downturn. This will bring new light to augment its journey towards global integration. India and Mongolia are willing to build high level of business and economic cooperation by reducing these trade restrictions.

## 5. Conclusions

During the visit of Prime Minister of India to Mongolia in May 2015, India announced a US\$ 1 billion line of credit (LoC) to strengthen Mongolia's economic capacity and infrastructure, and also elevate the bilateral relationship into strategic partnership level. The visit of Indian Prime Minister opened up new visitors of cooperation by signing 13 agreements between the countries. This will induce more economic opportunities along with mutual interest of peace and prosperity of both the countries.

Mongolia has strong dependence on its mining industry, with collaboration with India, Mongolia can leverage India's strong Information Technology (IT) and Information Communication Technology (ICT) base. India could build IT parks by creating Special Economic Zones (SEZ) in Mongolia. Sectors like logistics, education, health, tourism, financial services, automobiles, daily, food processing, minerals, construction etc. have immense bussiness opportunities. These measures could help Mongolia to diversify its export opportunities in the global market.

Other than trade cooperation, India has also shown interest in renewable energy and defence sectors. Mongolia's immense mineral resource with radioactive mineral reserve that could help power India's low carbon growth. India could also provide the technology support to establish energy center in Mongolia with utilizing Mongolia's own minerals rather than depends on imports of energy. On the security aspect, India is committed to establish a Cyber Security Training Centre at Mongolia's defence ministry to undertake the training of Mongolian personnel in cyber security. India can also provide support to the Mongolian government in establishment of e-governance. India may consider to play a critical role to support Mongolia's infrastructure and institutions, especially in trade and education. Indian investment in social infrastructure like

health and skill development can help foster the partnership between the two countries. Animal vaccination, medicines and veterinary care can be a potential area of cooperation between India and Mongolia, as animal husbandry sector is the fundamental source of food and raw materials and contributes 20 per cent in Mongolia's total GDP.

With the deep rooted history of interactions, India and Mongolia could engrave their relation by greater cooperation in economic, social, political, cultural and security areas. The relation between them could endeavor the untapped regional accessibility by stronger dynamic cooperation.

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<sup>1</sup> Mongolia is an integral part of India's Act East Policy (AEP). Refer, the India-Mongolia joint press conference issued during the visit of Indian Prime Minister to Mongolia in May 2015.

<sup>2</sup> Data source World Development Indicator

<sup>3</sup> Data source World Development Indicator

<sup>4</sup> Data source UNCOMTRADE

<sup>5</sup> It is calculated as:  $T_{ij} = (x_{ij}/X_{it})/(x_{wj}/X_{wt})$ , where  $x_{ij}$  and  $x_{wj}$  are the values of country i's exports and of world exports to country j and where  $X_{it}$  and  $X_{wt}$  are country i's total exports and total world exports, respectively.

<sup>6</sup> Refer, <http://investmongolia.gov.mn/en/>

<sup>7</sup> Direct investments by Indian firms were US\$ 2.28 billion in October 2015, as per Reserve Bank of India (RBI) data. The investments were primarily a mix of issuance of guarantees (US\$ 1.72 billion), loan (US\$ 210.94 million) and of equity (US\$ 341.82 million). FDI outflows in 2014 were mostly directed towards countries providing higher tax benefits such as the Netherlands (26 per cent), Singapore (14 per cent) and Mauritius (12 per cent). On the sector front, transportation, storage and communication services drew maximum investment outflows from India (28 per cent). Companies have also been actively investing in sectors such as manufacturing (24 per cent), agriculture and mining (21 per cent), wholesale, retail trade and restaurant (10 per cent), financial institutions and business services (8 per cent). Refer, for example, <http://www.ibef.org/economy/indian-investments-abroad>

<sup>8</sup> Refer, <http://investmongolia.gov.mn/en/>

<sup>9</sup> Lower the rank implies higher investment friendly environment.

<sup>10</sup> Uranium exploration is being keenly pursued by Jindal steel after acquiring 2 exploration licenses.

<sup>11</sup> The gap between the bound and applied MFN rates is called the binding overhang. Trade economists argue that a large binding overhang makes a country's trade policies less predictable.

<sup>12</sup> Based on authors discussion with a prominent international shipping line in New Delhi.

<sup>13</sup> Refer, Vorshilov and Ulzii-Ochir (2016)

<sup>14</sup> Central Bank of Mongolia.

<sup>15</sup> <http://www.worldbank.org/en/country/mongolia/publication/mongolia-economic-update-november-2015>

## References

De, P. and S. Pan (2017). "Enhancing Economic Relations between India and Mongolia: Tasks and Opportunities", Knowledge World, New Delhi

Eldev-Ochir, E (2016) "Logistics and Transport Challenges in Mongolia", *The Northeast Asian Economic Review*, Vol. 4, No. 2, pp. 21-36

Frontier's Strategy Note, 13 February 2015, available at: [www.frontier.mn](http://www.frontier.mn)

India Brand Equity Foundation, New Delhi, website: <http://www.ibef.org/economy/indian-investments-abroad>

Invest Mongolia Agency, website: <http://investmongolia.gov.mn/en/>

- MacDougall, C. (2015) "Foreign Direct Investment into Mongolia", *The Northeast Asian Economic Review*, Vol. 3, No. 2, pp. 43-53
- Paust, S. (2014). "Development via regional integration – Mongolia's chance for a prosperous future." *Asian Pathways*, A blog of the Asian Development Bank Institute, 18 April. Available at: <http://www.asiapathways-adbi.org/2014/04/development-via-regional-integration-mongolias-chance-for-a-prosperous-future/>
- Ministry of External Affairs (MEA), Joint Statement for India-Mongolia Strategic Partnership (May 17, 2015), Available at: <http://www.mea.gov.in/bilateral-documents.htm?dtl/25253>
- National Resource Governance Institute (NRGI), website: <http://www.resourcegovernance.org/>
- Stobdan, P. (2015). "In Modi's Mongolia Pivot, a Test of Indian Soft Power." *The Wire*, 15 May.
- World Trade Organisation (2014). *Trade Policy Review 2014*. World Trade Organisation (WTO), Geneva.
- World Bank (2015). *Mongolia Economic Update - November 2015*. World Bank, Washington D.C. website: <http://www.worldbank.org/en/country/mongolia/publication/mongolia-economic-update-november-2015>
- Vorshilov, E. and N. Ulzii-Ochir (2016) "Analysing the Impacts of Mongolia's Trade Costs", *The Northeast Asian Economic Review*, Vol. 4, No. 2, pp. 43-76



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