

## Economies of Two Asian Giants India and China: A Comparative Study

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### **Abstract**

*India & China are two large Asian countries experiencing rapid growth during recent decades. China's semi capitalist economy has already surpassed the economies of France, Germany and Japan to become the second largest economy behind USA. India is about a third of china's size. The present study aims to compare the economies of two countries. As India & China are two fastest growing countries of Asia, so it is interesting to compare these economies. Major factors of comparison are: GDP, GNP per capita, Tax, Infrastructure, Educational status, Health status and etc. This study also identifies the challenges faced by both countries. The study concludes that China is superior as compared to India. For India to match china it needs a better-educated and healthier labor force at all levels of society.*

**Keywords:** Asia, India, China, Economic growth, Comparison

### **Introduction**

During the last 30 years there has been a seismic shift in the global economy. Rising from poverty, backwardness, and a morass of failed policies, China and India—the two most populous nations on the planet—have rapidly emerged as powerful economic forces (Rodriguez, P .2011).The growth prospects of China and India are expected to differ from past patterns as they face different internal conditions. China's economy slows while India's growth remains robust over the medium term. Continued investment in infrastructure in China is helping to support overall investment, though this stimulus is unsustainable in the longer term. Growth is slipping elsewhere as adjustments are underway in manufacturing to manage longstanding challenges from excess capacity. India, on the other hand, is seeing increased investment rates, thanks to public infrastructure development and private investment motivated by improvements in the business environment, though passing some key structural reforms is proving difficult. Private consumption is also increasing, thanks in part to higher wages and improved benefits for public sector employees. Domestic financial risks remain potential barriers to continued growth in India, particularly large non-performing loans and the high leverage ratios of some firms (OECD, 2016).

### **Purpose of the study**

The purpose of the study is to compare the economies of two large Asian countries India and china. Major factors of comparison in this study are Gross Domestic Product (GDP), Gross National Product (GNP) per capita, Tax revenue, Infrastructure, Educational status, Health status and etc. And also, to identify the challenges faced by both countries.

### **Sources of data and Methodology used**

The present research involved an extensive study of literature and is entirely based on secondary data to compare the economies of India and china. Relevant data have been collected from The GlobalEconomy.com, World Bank, UNESCO, International Communication Union, & Word Economic Forum, & Human Development Report (HDR) 2015.

### **Review of Literature**

A comparison between the economies of India and China has been a subject of intense investigation in the past; both with scholars (Bosworth and Colluns 2007; Huang and Khanna 2003; Madhan et al. 2010; Srinivasan 2006) and in popular media (“Chasing the dragon: How the Asian superpowers compare on various measures of development” 2011; Wright 2012).

The Indian economy started to integrate with the global economy about 13 years after that of China and her current GDP in absolute terms is at \$1.9 trillion versus that of China at \$8.2 trillion in 2012 (IMF Statistics 2012). The Indian GDP growth has been typically below 8 percent, while that of China exceeds about 10 % over the last decade. What is the china model that made the country so successful economically? Did china grow because of infrastructures and FDI? The true success factor for Chinese growth is the huge investments made in human capital development and much of that was made in the 1950s, 1960s and 1970s. Indian policy makers, business elites and intellectuals chose not to look at this aspect of china model. Instead, they turn their gaze at the glittering skylines and the fancy airports in Beijing and Shanghai (Huang, Y. 2009). There is another reason why Indians have excused not to realise that this is the true advantage of china. Indian economist Amartya Sen has written some of the best treatments on this topic in his book, co-authored with Jean Dreze, *India: Economic Development and Social opportunity*, he highlights a critical reason why India lagged behind china in the initial phase of economic development- India's highly inadequate and inequitable provisions of health care and educational facilities.

“Comparing ourselves with China in these really important matters would be a very good perspective, and they can both inspire us and give us illumination about what to do — and what not to do, “the lives that people are able to lead — what ultimately interests people most — are only indirectly and partially influenced by the rates of overall economic growth”. “Almost half of our children are undernourished compared with a very tiny proportion in China,” Sen added. “Despite the interest in this subject (of comparing India's eight-per cent growth to China's 10 per cent). This is surely a silly focus,” (Amartya Sen, 2011).

Reforms in China are older than they are in India. Therefore, a comparison of econometric parameters shows that during 1980-2012 the compound annual growth rates of exports, imports and GDP per capita have been better in China as compared to India. The study found that India & China had similar level of per capita GDP (at constant prices 2005 US\$) in 1980, but China grew much faster and overtook India by the early 1990s. Since then growth in China has been so fast that its per capita GDP is double than that of India. The reason behind it is, China has encouraged Foreign Direct I by multinationals looking to set up export-oriented manufacturing operations. In contrast, India followed an import-substitution policy and relied on domestic resource mobilisation and domestic firms for long time. China launched its economic transformation by using abundant labour at low wage rate to establish manufacturing for export industries while India focused on service export sector. (Kumari Deepika & Neena Malhotra, 2014).

Yanrui Wu (2008) in his study found that regional economic development in China and India is unbalanced. This study also shows that variations in urbanization and infrastructure development are found to be major contributors to regional disparity. While both countries have to build more infrastructure and speed up urbanization, they should also aim for a more balanced strategy among the regions. In addition, it seems that human resource development also plays a role in affecting regional disparity in India in recent years while, in China, the export sector is found to be a positive contributor to regional disparity. These findings, though subjected to qualifications, may point out the direction for policy responses by governments in China and India in the near future.

### ***Indian Economy vs. Chinese Economy***

China's semi capitalist economy has already surpassed the economies of France, Germany and Japan to become the second largest economy behind USA. India is about a third of china's size. Today, china tops India in terms of population at 1371.22 million people compared to India at 1,311.05 million but India is growing at faster rate and has a young population. It needs to be emphasized here that the Chinese economy experienced extremely surprising growth in the last few decades that propelled the country to become the world's second largest economy. In 1978 when china started the program of economic reforms the country ranked ninth in nominal GDP with USD 214 billion, 35 years later it jumped up to second place with a nominal GDP of USD 9.2 trillion. Since the introduction of the economic reforms in 1978, china has become the world's manufacturing hub, where the secondary sector (comprising industry & construction) represented the largest share of GDP. In 2015, the Chinese economy missed its 7.0% growth target for the year by 0.1 percentage points, marking the first time in two decades that growth has come in below target. Investment in manufacturing and infrastructure is slowing as the nation shifts from an investment driven growth model to one more focused on consumer demand. Growth in China will continue to slow while growth in India picks up to one of the highest levels in the region, i.e. 7.56.

The slowdown in China's economy will continue to affect the growth prospects of the rest of the region as export demand drops and investment flows decline, though countries vary in their level of exposure to these risks (OECD, 2016). Despite this China's stronger economy could be judged by the indicators such as greater tax revenues, almost triple GDP per capita, more than double Gross National Income per capita, current account balance, and low inflation rate (See Table 1). Given the better quality infrastructure and better production techniques in china, it is not surprising that average Chinese worker produces 1.6 times more output than that of the average Indian workers. This shows that the productivity of china as a nation is 60 percent higher. Manufacturing sector is the main driver of china's growth. China lead over India in terms of manufacturing. Indian manufacturing sector has multiple structural problems like erratic electricity supply, slow transport systems as well as lack of skills.

**Table 1: Major Economic Indicators**

S.No	Indicators	Years	India	China
1.	GDP Growth	2015	7.56	6.91
2.	Growth Prospect	2016-20	7.3	6.0
3.	Gross Nation Income per capita(PPP)	2015	6,020	14,160
4.	GDP per capita(PPP)	2015	5,729.78	13,571.69
5.	Population(in million)	2015	1,311.05	1,371.22
6.	Urban population (% of total)	2015	32.75	55.61
7.	Inflation	2015	5.87	1.44
8.	Tax revenue (% of GDP)	2013	11	9.9
9.	Current Account(% of GDP)	2015	-1.07	3
10.	Foreign Direct Investment(% of GDP)	2015	2.1	2.27

Source: The GlobalEconomy.com & the World Bank

### **Infrastructure and Transports**

At the beginning of 90's India's highway infrastructure was actually ahead of china in terms of total route Km as well as route km/head of population. Fifteen years later, while India's expressways languish in potholed chaos, china boasts of a world-class highway network of some 41,000Kilometers, second only to the United States in size (Pavithran, S., & Mukhtar, J, 2011). Now China is far ahead of India in respect of infrastructure development and transport (As shown in table 2). "China spends more on economic infrastructure annually than North America and Western Europe combined", according to the Mckinsey Global Institute (MGI) Report (2016). All the indicators shown in the table are well developed in china which has put a positive impact in its economy to make it one the best in the world. While infrastructure in India not so good compared to china because of corruption in the government(India ranks 94 in the corruption & china ranks 80), poor coordination between various government offices, rampant red-tapism exists in the Indian economy, and economic reforms in Chinese economy took place in 1978 whereas in India around 1991.

**Table 2: Infrastructure and Transports**

S.No	Indicators	Years	India	China
1	Internet user	2015	26	50.3
2	Internet subscribers (per 100 people)	2015	1.34	18.56
3	Mobile Phone Subscribers (Per 100 people)	2015	78.84	93.16
4	Air transport infrastructure quality	2015	4.26	4.79
5	Railroads lines(Km)	2015	65,808	66,989
6	Roads Quality	2015	4.14	4.69
7	Railroad infrastructure quality	2015	4.15	5.02
8	Port infrastructure quality	2015	4.21	4.55
9	Access to electricity(% of population)	2012	78.7	100

Source: International Communication Union, World Bank & Word Economic Forum.

### **Human Development Index (HDI)**

Government expenditure on health care in china is more than five times that in India. According to the Human Development Report of 2015, economy of china is classified in “High Human Development” while economy of India is in “Medium human Development”. China ranks 89 whereas India’s ranking is 131. The value of Human Development Index (HDI) of china (0.738) is greater than India (0.624). The life expectancy at birth in India is estimated for 68 whereas it is 76 years for china. The infant mortality rate in 41.4 per thousand in India, compared with just 10.9 in china; the mortality rate for children under 5 is 181 per thousand for Indians and 28 for the Chinese; and the maternal rate is 181 per 100,000 live births in India and 28 in china in 2014 (Table 3.2).

Despite impressive achievements in many areas, huge human potentials remain unused in India whereas china has strong human capital and brighter educated society. China has almost reached 100 percent literacy rate whereas India’s literacy rate is still persisting at 72.1percent (Table 3.1).

In India two groups whose work potential is not fully used are women and younger people. Over the last decade or so, India has made considerable progress in increasing access to education for girls as increasing numbers of women of working age are enrolling in secondary schools (Verick,S. 2014); but that rate is still not much above 85 percent, whereas in china it is 99 percent. One of the serious failures of India is that a very substantial proportion of Indian children are, to varying degrees, undernourished (depending on the criteria used, the proportion can come close to half of all children), compared with a very small proportion in China. Only 66 percent of Indian children are immunized with triple vaccine (diphtheria/pertussis/tetanus), as opposed to 97 percent in China. Comparing India with China according to such standards can be more useful for policy discussions in India than confining the comparison to GNP growth rates only. Those who are fearful that India’s growth performance would suffer if it paid more attention to “social objectives” such as education and health care should seriously consider that notwithstanding these “social” activities and achievements, China’s rate of GNP growth is still clearly higher than India’s (Sen, Amartya. 2011)

**Table 3.1: Education Status**

<b>S.No</b>	<b>Indicators</b>	<b>Years</b>	<b>India</b>	<b>China</b>
<b>1.</b>	<b>Literacy Rate</b>	2015	72.1	96.4
<b>2.</b>	<b>Youth Literacy Rate</b>	2015	89.66	99.73
<b>3.</b>	<b>Female Literacy Rate</b>	2010-11	81.85	99.59
<b>4.</b>	<b>Male Literacy Rate</b>	2010-11	90.04	99.69
<b>5.</b>	<b>Primary School Enrolment</b>	2013	110.58	103.92
<b>6.</b>	<b>Secondary School Enrolment</b>	2013	68.9	94.32
<b>7.</b>	<b>Tertiary School Enrolment</b>	2013	23.89	39.39
<b>8.</b>	<b>Student Teacher Ratio, primary school</b>	2013-14	32.32	16.23

Source: UNESCO

It is observed in most of the cities of the developing world that the people particularly in slums they are deprived from basic amenities such as improved water supply, sufficient improved sanitation facilities and the common people have many problems of health due to water pollution (Rigi,F.M. 2011).In both the countries India and china more than 10 percent of population (urban & rural) do not have access for improved water supply. Surprisingly nearly 56 percent of population in India does not have improved sanitation facility whereas in china only 23 percent (Table 3.2).

**Table 3.2: Health Status**

S.No	Indicators	Years	India	China
1.	Per capita spending on health	2014	74.99	419.73
2.	Life Expectancy	2014	68.01	75.78
3.	Infant Mortality Rate (per,1,000 live birth)	2014	41.4	10.9
4.	Mortality Rate under 5(per,1,000 live birth)	2014	50	11
5.	Maternal Mortality Ratio(per 100,000 live birth)	2014	181	28
6.	Fertility Rate	2014	2.43	1.56
7.	Tuberculosis cases	2014	167 cases	68 cases
8.	Population without access of improved water supply, rural	2014	7.4	7
9.	Population without access of improved water supply, urban	2014	2.9	2.5
10.	Population without access of improved sanitation (%)	2015	56	23

Source: World Health Organization (WHO) and UNICEF.

India ranks 130 out of 155 countries in the Gender Inequality Index (GII) for 2014, way far behind china that rank 40, according to data in the United National Development Programme's latest Human Development Report (HDR) 2015 (Table 3.3). The index captures inequalities in gender-specific indicators: maternal mortality ratio, reservation for female in parliaments and labour force participation rates for both men and female. UNDP officials state that over the last couple of years, India's GII values have improved slightly from 0.61 to 0.563. This is mainly due to improvements in maternal mortality rate and women's representation in parliaments in this period though other indicators have remained stagnant. The HDR 2015, which is focused on the issue of work, also documents a global drop in female labour force participation rate, which is the proportion of working-age population in paid employment or looking for paid work. "This is owing mainly to the steep reduction for India, from 35 per cent women in 1990 to 27 per cent in 2013, and China from 73 per cent to 64 per cent in the same period," said Yuri Afanasiev, UNDP resident representative in India.

**Table 3.3: Gender Inequality Index**

S.No	Indicators	Years	India	China
1.	Gender Inequality Rank	2014	130	40
2.	Gender Inequality Value	2014	0.563	0.191
3.	Share of Seats in Parliament(%)	2014	12.2	23.6
4.	Labour force participation Rate (%)			
	Female	2014	27.0	63.9
	Male		79.9	78.3

Source: Human Development Report, 2015.

**Table 4: Multidimensional Poverty Index (2005-14)**

S.No	Indicators	India	China
1.	M-D Poverty index	0.283	0.023
2.	Population living below income Poverty line (PPP \$1.25 a day)	23.6	6.3
3.	Intensity of deprivation (%)	51.1	43.3
4.	Contribution of deprivation to overall poverty		
	Education	22.7	30.0
	Health	32.5	36.6
	Living Standards	44.8	33.4

Source: Human Development Report, 2015.

Economic growth is a necessary condition to rising per capita income, but it is nonetheless insufficient to guarantee a steady trend towards poverty reduction. In India and China, since the late 1990s both the countries have experienced the fastest economic growth, and yet the speed at which poverty is being reduced has decelerated. The one shared achievement between the two countries was their success in cutting the poverty rate. From 2001 to 2011, the poverty rate in China fell from 41% to 12% and the poverty rate in India dropped from 35% to 20%. That moved 356 million Chinese and 133 million Indians out of poverty, or 489 million people in total. This is almost three-quarters of the number of people that emerged from poverty globally (Kochhar, R. 2015). China has been very successful in reducing extreme deprivation, as is evident from the table 4.

### ***Innovation Index***

The Global Innovation Index captures elements of the national economy that enable innovative activities: (1) Institutions, (2) Human capital and research, (3) Infrastructure, (4) Market sophistication, and (5) Business sophistication. Two output pillars capture actual evidence of innovation outputs: (6) Knowledge and technology outputs and (7) Creative outputs. According to Cornell University, INSEAD, and the WIPO (2016), the value of innovation index of China (50.60) is greater than India (33.60). China rank was 25 while India rank 66.

### **Key Challenges: China & India**

Rapid economic ascendance has brought on many challenges as well, including high inequality; rapid urbanization; challenges to environmental sustainability; and external imbalances. China faces demographic pressures related to an aging population and the internal migration of labor. China's 12th Five-Year Plan (2011-2015) and the newly approved 13<sup>th</sup> Five-Year Plan (2016-2020) forcefully address these issues. They highlight the development of services and measures to address environmental and social imbalances; reducing the enormous savings rate for families and promoting domestic consumption; setting targets to reduce pollution; increase energy efficiency; improve access to education and healthcare, and expand social protection.

India, on the other hand, has to face a series of challenges in order to maintain and sustain current economic growth, such as: Lowering the poverty rate; eradicate violence and discrimination against women and children; curb endemic corruption; improve transport systems and infrastructure; control migration between the countryside and cities. Financial access has been a policy priority for India, but financial education programmes will also be needed to ensure that people are aware of the services available and sufficiently informed about the opportunities. Higher quality and more accessible education generally is important in a country like India with a young population. Quality of education should be improved, focus will be on teacher quality and upgrading school facilities.

**Table 5. Medium-term policy challenges and responses in Emerging Asia**

China	Environment Education and skills Rural development	Strengthen environmental regulations to improve quality of growth Upgrade human capital to facilitate transition to a higher value-added economy Boost rural development to ensure robust growth of incomes
India	Financial education	Strengthen financial education initiatives Enhance education access and quality

Source: OECD Development Centre.

### ***Conclusion***

It is evidently clear from the above discussion that China has proved that its success depends upon its investment in health and education, gender equality and equal and equitable distribution of wealth even through non-democratic influences. On the other hand, India's low literacy rates and poor health outcomes as compared to China's may explain a big part of the disparity in development between the two countries. The fact that in India, people-friendly and higher quality education and health policy could make a difference, not only to people's lives but also on economic growth of the country. For India to match China it needs a better-educated and healthier labor force at all levels of society.

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