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Employment Growth by Accelerated Manufacturing in India-

A comparative study and lesson to be learnt from China

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Introduction

It is the popular belief that employment growth should have been at an equal pace with the growth of Manufacturing industry in India post major economic reforms in 1991, but number of studies show that it hasn't been so. Though it's seen that employment has indeed increased post 1991 reforms it hasn't accelerated at the rate of manufacturing industry growth. adoption of automation methods and other technological advancements adopted by manufacturing companies have been a major reason for this phenomenon, and also the huge cost pressure on the firm due to stiff competition in the market which they operate In this paper we will investigate the employment growth in India during various periods of major economic changes and compare them in parallel with neighboring country China which has marked significant progress by adopting manufacturing as the major industry.

Manufacturing currently accounts for 32 percent of China's output while this figure is 16percent for India. 25 percent of Chinese manufacturing output is yielded by machinery and transport equipments, the percentage contribution of these sub segments in Indian manufacturing is less than 20. When role of manufacturing sector in export is taken into consideration China stands way ahead in the race compared to India. 85 percent of China's total export is contributed by its manufacturing products. Contrarily, India's manufacturing share in its total export has declined from 56 percent to about 42 percent

in the last decade. If we look at the pattern of Indian and Chinese manufacturing products, Chinese manufacturing has shifted from labor intensive products to automated and process oriented mass production of machinery products. In fact Chinese export of labor intensive products has declined from 39 percent to 26 percent during the period of 2000 to 2010. While during the same period machinery and transport equipment's share on total Chinese export has grown from 38 percent to 59 percent. In comparison, Indian manufacturing product export still largely depends on the mainly unorganized resource intensive materials such as primary and fabricated metals. The share of machinery and transport equipment remains small in comparison to china's share though it increased from 9 percent to 23 percent during the same decade (2000-2010).

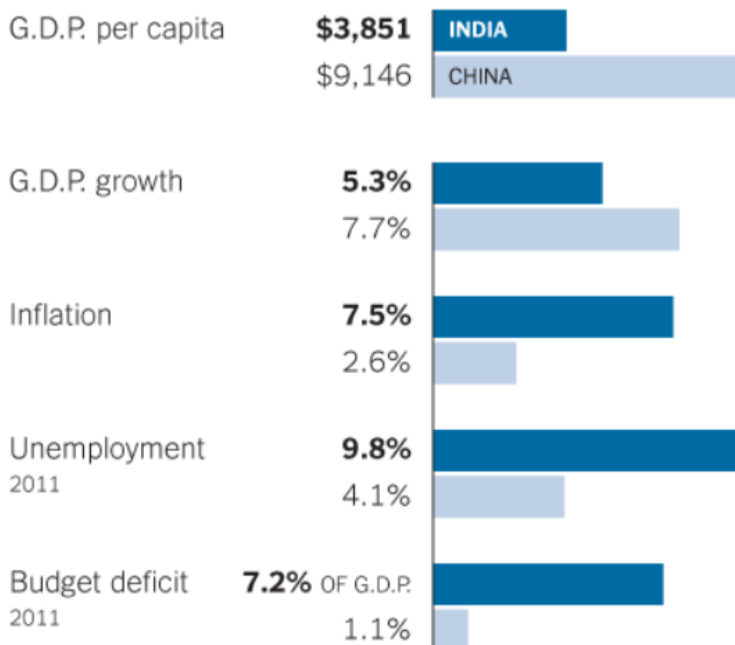
It's imperative that a globally competitive manufacturing sector creates a sustainable economic ecosystem encouraging domestic and foreign investment improving country's balance payment. Manufacturing being the oldest industry and a basic one in a developing economy creates job not only within its area but also due to spillover effects in financial services, Infrastructure, logistics, customer support, information technology, healthcare, education and training etc. It flourishes research and development, automation technologies. It's always said that in any economy manufacturing industry is driving industry in the second phase of economic emergence. That's why for developing economies like India and China both on a high growth trajectory, they need to focus on accelerated manufacturing industry. However various studies and research have shown that China is following the typical economic phases towards the path to become a developed nation, India on the other hand seems to have skipped one phase of development in its path which is manufacturing dominated phase. Dominance of manufacturing in Chinese economy is well pronounced. The share of manufacturing sector in GDP of china has been fairly stable at 34.3% in 1989, 31.6 percent in 1999 and 33.9 percent in 2009. Whereas the share in India is falling from 17 percent in 1989 to 14.8 percent in 2009.

Also till 2006 the prevailing anticipation and debate was on the topic of who will win the race on the economic development between china and India. However at present time it

looks like china has clearly won the race. Following graphical representation of economic indicators prove this statement.

Economic Competitors: India vs. China

All figures for 2012 unless otherwise noted.



Investment as a portion of G.D.P.:



Sources: International Monetary Fund; Bloomberg; The Economist
The New York Times

Economic Reforms

Both India and China have undertaken fairly extensive economic reform policies during past three decades. China's economic performance has been truly dramatic since the adoption of economic reforms in 1978. Not only economic performance indicators in China have been solid, the social progress, welfare and poverty reduction have also been

phenomenal. India's, the second most populous country and largest democracy in the world, growth performance since economic reform of 1991 has been relatively modest.

China policy review.

In late 1970s China began its transition to a market-orientated economy with a gradualist approach. State-owned enterprises (SOEs) were under huge pressure to become more competitive, the dismissal of state employees remained an exception up until the early 1990. Nearly a third of SOEs were losing money and 20 to 40 percent of all SOEs workers were redundant in the early 1990s. Late 1990s, a large number of SOEs were transformed into joint-stock companies, went bankrupt, merged with other enterprises, or were sold to private individuals. In 1997, newly elected premier Zhu Rongji announced large-scale retrenchment as a result of which more than 28 million state workers were laid off between 1998 and 2002. The workforce were absorbed by private manufacturing companies later.

Reforms in Indian Manufacturing

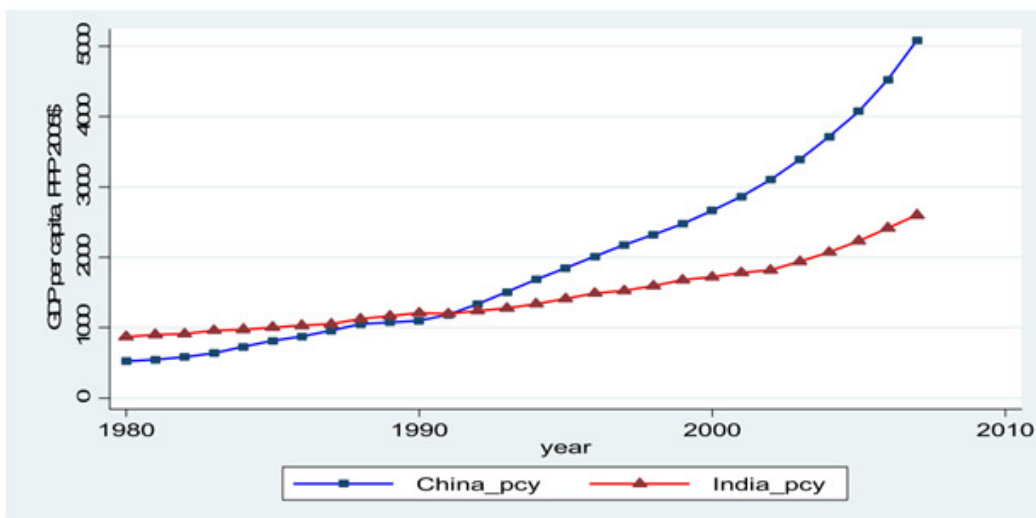
Registration of a company under the Factories Act of 1948 implies that the firm will have to comply with a wide range of government regulations that are exclusively applicable to formal sector. Among the most onerous government regulation that firms in formal manufacturing sector in India face are Employment Protection legislation which is the most restrictive in the world (Ahsan and Pages 2009, Dougherty 2008). In 1991, the license Raj effectively came to an end, when industrial licensing was abolished irrespective of the level of investment. Also, under the new policy guidelines on foreign investment, automatic permission is granted for foreign equity participation up to 51 per cent in a specified list of high technology and high investment priority industries.

The major reforms undertaken in 1991 were not accompanied by reforms in the outdated Indian labor laws. In fact 2005-2006 Economic survey by Indian Ministry of Finance urges India to take a leaf out of China's experience with labor reforms and says- "... studies indicate that Indian labor laws are highly protective of labor , and labor markets are

relatively inflexible... perhaps there are lesson to be learnt from China in the area of labor reforms. China, with a history of extreme employment security, has drastically reformed its labor-relations and created a new labor market, in which workers are highly mobile". Kochar et al. (2006) argue that lack of labor market reforms may have hurt the Indian manufacturing sector. Basu (2005) argues that labor market rigidities in India are in sharp contrast to Asian countries and have resulted in poverty, underemployment and unemployment of workers in India.

A World Bank report (2010) notes that by imposing excess rigidity in the formal manufacturing labor market, labor regulations has created disincentives for employers to create jobs. The report gives an estimate according to which the Industrial Dispute Act has caused about 3 million less jobs to be created in formal manufacturing sector.

GDP per capita, PPP (constant 2005 international dollars) trends in China and India



Source: World Bank

Manufacturing Employment growth in India

The planning commission's special group on employment generating growth in 2002 noted that "even if the organized sector grew at 20 percent per annum and the private organized sector at 30 percent per annum, their contribution to total employment would increase hardly by 1.5 to 2 percent of the total over the Tenth plan."

Employment in organized manufacturing sector remained stagnant with growth of 0.53 percent in the 1980s in India. However the growth of employment in this sector during 1990s was relatively better at 4.03 percent. Private organized manufacturing employment which was stagnant during the 1980s, rose marginally during the early 1990s and particularly sharply during 1995-97, after which it has declined to return to its mid-1990s level by 2003. In the event, aggregate (public and private) organized manufacturing employment rose from 6.1 million in 1981 to 6.4 million in 1994 and 6.9 million in 1997, and then declined. During the same period overall employment growth hasn't been equally encouraging. This growth in employment may be thought of as a result of economic reforms of 1991. There is some basis for this assumption because in certain ways, economic reforms are expected to have a favorable effect on the growth of employment in industries. It should also be pointed out, as studies have shown, that in certain other ways economic reforms are expected to have an adverse effect on industrial employment. Given the slight increase in the growth of employment in organized manufacturing sector, the real average wage of workers have been more or less constant right through the 1990s. Average real wage increased in the early years of 1990s until 1996 and then fell quite sharply. The real wages have stagnated since 2000. As result real wage during 2003-2004 were around 11 percent lower than real wages during 1995-96. This is despite the rapid growth in industry and contributes to an explanation of the explosion in corporate profits.

| Growth rates of employment (Annual compound rates percent) | | |
|--|-------------------------|-------------------------|
| | 1993-94 to 1999-2000 | 1999-2000 to 2004-05 |
| Agricultural self employment | -0.53 | 2.89 |
| Agricultural wage employment | 1.06 | -3.18 |
| Total agricultural employment | 0.03 | 0.83 |
| | | |
| Rural non-agri self employment | 2.34 | 5.72 |
| Rural non-agri wage employment | 2.68 | 3.79 |
| Rural total non-agri employment | 2.26 | 5.27 |
| | | |
| Urban non-agri employment | 3.13 | 4.08 |
| Secondary employment | 2.91 | 4.64 |
| Tertiary employment | 2.27 | 4.67 |
| | | |
| Total non-agricultural employment | 2.53 | 4.66 |

Source: ASI 61st survey report

Indian growth story before and since 1991 reforms is mainly criticized for being a "Jobless Growth" meaning though there has been good numbers posted as GDP growth, similar growth hasn't been noticed in the employment creation. Goldar (2008) has challenged this long lasting viewpoint on Indian growth saying that Employment growth in organized manufacturing has been unprecedented and very rapid at 7.5 percent per annum between the period of 2003 and 2009. The growth in employment in private limited manufacturing company during this period was whopping 14 percent. Also, share of private limited companies in total ASI employment has increased from 25 percent in 2003 to about 33 percent in 2009.

Table : Employment in Organised Manufacturing, 2003-04 and 2008-09 by Type of Organisation

| Type of Organisation | Growth Rate in Employment, 2003-04 to 2008-09 (% pa) | Share in Employment, 2003-04 (%) | Share in Employment, 2008-09 (%) | Employment/Gross Value Added (Number/ Rs crore), 2003-04 | Employment Per Factory, 2003-04 (No) |
|------------------------------|--|----------------------------------|----------------------------------|--|--------------------------------------|
| 1 Individual proprietorship | 7.74 | 9.80 | 9.88 | 153.8 | 22.8 |
| 2 Joint family (HUF) | -11.18 | 1.05 | 0.40 | 116.7 | 27.3 |
| 3 Partnership | 5.25 | 18.98 | 17.03 | 102.1 | 33.8 |
| 4 Public limited company | 6.12 | 37.58 | 35.14 | 18.8 | 216.5 |
| 5 Private limited company | 14.03 | 24.52 | 32.84 | 47.9 | 62.8 |
| 6 Govt dept enterprises | -5.97 | 0.56 | 0.29 | 20.9 | 102.6 |
| 7 Public corporation | -10.62 | 3.43 | 1.36 | 11.3 | 470.5 |
| 8 Corporate sector (4+5+6+7) | 8.68 | 66.09 | 69.63 | 23.2 | 114.5 |
| 9 Khadi and village industry | -8.02 | 0.10 | 0.05 | 137.8 | 55.0 |
| 10 Handloom industry | -15.16 | 0.05 | 0.02 | 102.4 | 117.7 |
| 11 Cooperative society | -4.21 | 3.61 | 2.02 | 86.0 | 133.2 |
| 12 Others (incl NR) | 34.11 | 0.32 | 0.97 | 92.3 | 80.3 |
| All | 7.56 | 100.00 | 100.00 | 31.8 | 61.0 |

Manufacturing accounts for 97% of total ASI in terms of employment as well as value added.

Source: Based on ASI results for 2003-04 and 2008-09.

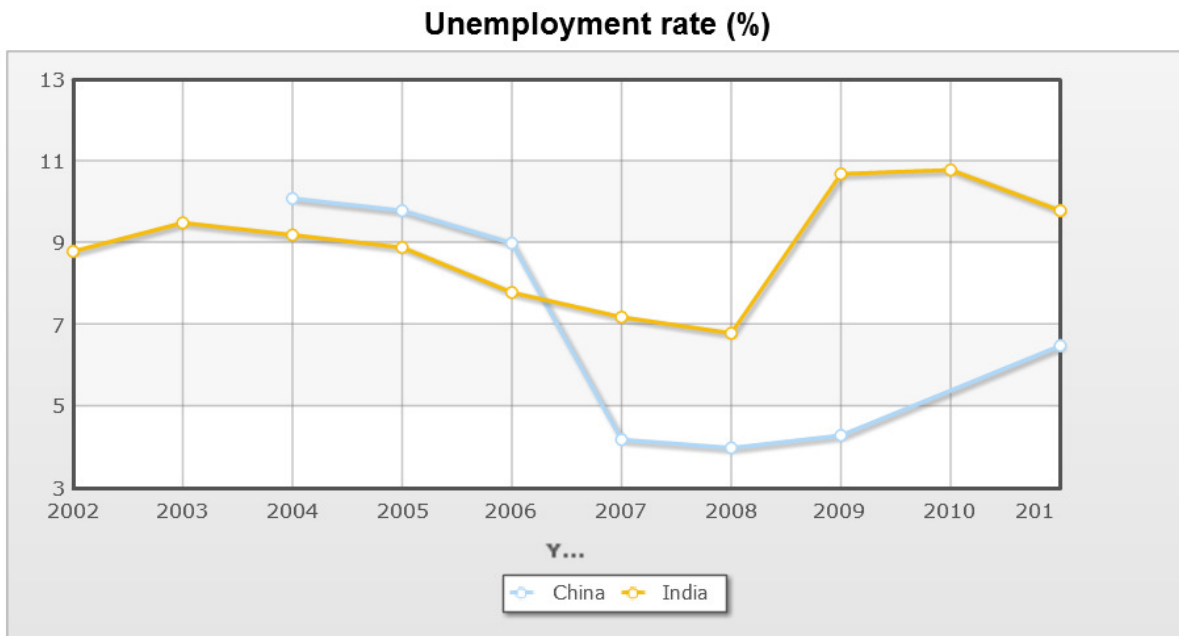
Manufacturing Employment growth in China

Between 1978 and 2006, China's real GDP increased by more than 12 times. Employment increased by 90% during this period, real GDP per worker increased by more than 11 times. This is truly phenomenal for a labor force that is more than a quarter of the world total. Sustained rapid economic growth is said to achieve the twin targets of economic and employment growth. During the same period, agriculture's share of total employment decreased by almost 30 percent from 71 percent to 43 percent whereas share of secondary sector (industry plus construction) increased from 17 percent to 25 percent and that of tertiary sector (i.e. services) increased from 12 percent to 32 percent. This happened along the lines of massive labor force increment from 402 million in 1978 to 764 million in 2006. During 1981-1985, the average annual increase in the number of employment in China exceeded that of the labor force, implying that the demand surpassed supply of labor. And during 1986-1990 the supply and demand were at balance. Thereafter supply has been slightly exceeding demand.

During the period of 1998-2002 China faced an economic crisis and employment growth hasn't been as substantial as it had been during the decade before this period. To revive the economy and employment scenario Chinese government made policy changes in broad two areas: a) labor market policies, which are effected within the labor market, and b) macro policies, which are affected in other markets or in the economy as a whole and are designed to have an impact on labor employment.

The privatization and downsizing of SOEs in 1995-97 resulted in a mass unemployment, while commercialization of state banks resulted in their behavior switching for excessive lending to excessively cautious lending. The major highlights of anti-crisis policies adopted by Chinese government are Fiscal packages for expanding investment demand range of welfare-state policies which included lifting up the benefits for retired or unemployed workers, raising the payments of public sector employees, and lengthening the paid holidays of workers- aimed at reversing the trend of stagnant consumption expansion. Policy measures to re-vitalize the state sector- including the setting up of four state asset management companies to take over non-performing loans from state banks and for a program of debt-equity swap, aimed at improving the financial condition of SOEs and balance sheets of state banks were part of the cautious approach to reforming the regime of external transaction.

On the whole, Chinese state leadership was quite successful with its fiscal activism in the period 1998-2002 by adopting expansionary fiscal policies to stimulate aggregate demand and therefore economic growth. Apart from surviving the difficult years from 1998 to 2001, from 2002 onwards economic growth has accelerated. Lessons to be learnt for employment growth in manufacturing sector in India, though manufacturing employment growth in India since 2000 has been comparatively better than previous decades, is that it is still not in the same growth lines as the manufacturing and industry growth. Manufacturing employment growth needs to accelerate in manufacturing sector so as to provide employment to larger number of unemployed workers thereby helping reduce India's high unemployment rate of 9 percent.



| Country | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------|------|------|------|------|------|------|------|------|------|------|
| China | | | 10.1 | 9.8 | 9 | 4.2 | 4 | 4.3 | | 6.5 |
| India | 8.8 | 9.5 | 9.2 | 8.9 | 7.8 | 7.2 | 6.8 | 10.7 | 10.8 | 9.8 |

Source: CIA World Factbook

Following are the ways India can achieve this, some of which are from the successful results from Chinese manufacturing story.

1. Preferential Government policy

Contrary to Indian government's policy on manufacturing, Chinese government has an interventionist government policy, though often noted as adversely affecting economic efficiency, has worked for China's manufacturing sector. In automotive and electronic sectors china has put major emphasis on promotion of learning rather than innovation (Segal and Thun 2001). Shanghai government has been successful in interventionist policy to ensure smooth supplier network. As a result, shanghai is considered to be one of the most robust manufacturing centers for automotive and electronics parts.

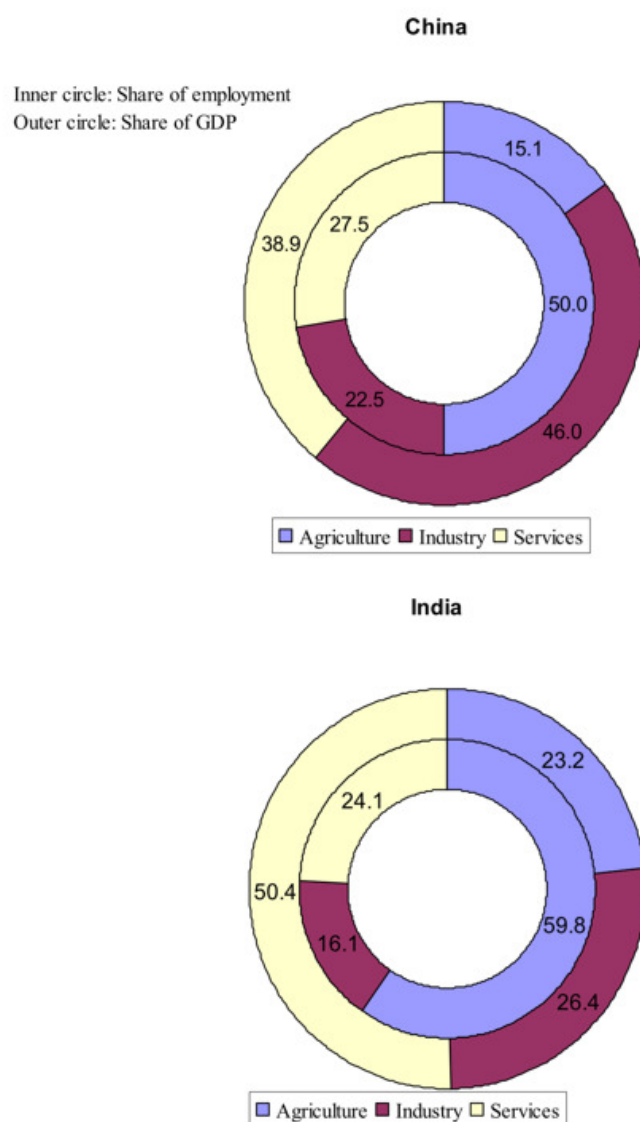
Furthermore, ease of doing business in China is far better than any (to open and close a business) other Asian countries.

2. Foreign Investment

China has attracted more FDI than India throughout the past two decades. FDI inflow to China increased from USD 3.5 million in 1990 to USD 108.3 billion in 2008. In India it increased from a negligible level in 1990 to USD 40 billion in 2008. Sectorial analysis of FDI inflow in China shows that MNCs are putting more bucks in the manufacturing sector in China whereas they are putting more bet in the service sector in India. Manufacturing sector in China received 60 percent of total FDI inflow between 2005 and 2008. In contrast Indian manufacturing sector received just 21 percent of total FDI inflow to India. Also much of FDI inflow into India's manufacturing sector has been largely driven by market seeking and the need to circumvent high import duties. While foreign investment in China was more of an efficiency-seeking and connected to export activities.

Intra-regional investment has played an important role in China. High income East Asian countries are all on the list of top 10 investors in China. They account for 70 percent of total FDI inflow to China. In case of India only 15 percent of FDI inflows between 2005-2009 originated from Asian countries.

Figure . Distribution of employment and GDP by sector, China and India, 2000



Sources: Based on data from the *ESCAP Statistical Yearbook, 2011* and the International Labour Organization.

3. Infrastructure Investment

One of the most important factors for china's success is its top class infrastructure. Effective infrastructure plays a major role in Manufacturing. Things like good roads accessibility to remote places and power supply are basic necessities for any

manufacturing firm operating in a country. In the past 10 years, china has built 25000 km of four-six lane expressways. In china, power outage happen on average every other week, which is considered low compared to other developing countries (World Bank).

| Telecommunication | | Power Supply | | Transportation | |
|--|-------|--|-------|--|-------|
| Number of Days to get a new phone connection | | Number of Days to get connected to a public grid | | Average Inventory Days of Average Inputs | |
| India | China | India | China | India | China |
| 29.8 | 9.3 | 47.8 | 25 | 32.5 | 24.2 |

4. Focus from Labor-intensive SME sector to technology-intensive volume production

In order to frame a policy that would pull India out of the phenomenon of very low growth in unorganized manufacturing employment, it is important to understand the reasons for India's failure to make a dent in the world market for labor-intensive manufacturers. Large portion of India's manufacturing in low-technology products are produced in small and medium enterprise (SMEs). This has a historical background in the Gandhian emphasis on village and cotton industry. The idea at that time was it would provide substantial rural and semi-urban employment and reduce pressure on the urban labor market. This could have worked in a protected market, but in the current semi-open market higher cost of production not only restricted the growth of labor-intensive manufactures but also led to a loss of some part of the home market to imports from China, Indonesia, Bangladesh and so on. The recommendation of Abid Hussain committee that "reservation of products for the small-scale sector must be totally abolished. It has been so ineffective that even a phased abolition will serve no purpose" (1997) hasn't been implemented. In contrast, in China such labor-intensive manufacturing units are of large-scale, employing even up to 25000 workers. McKinsey report (2004) says that Indian workers are half as productive as their Chinese counterparts. Also average rejection levels for Indian goods are double the Asian levels.

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