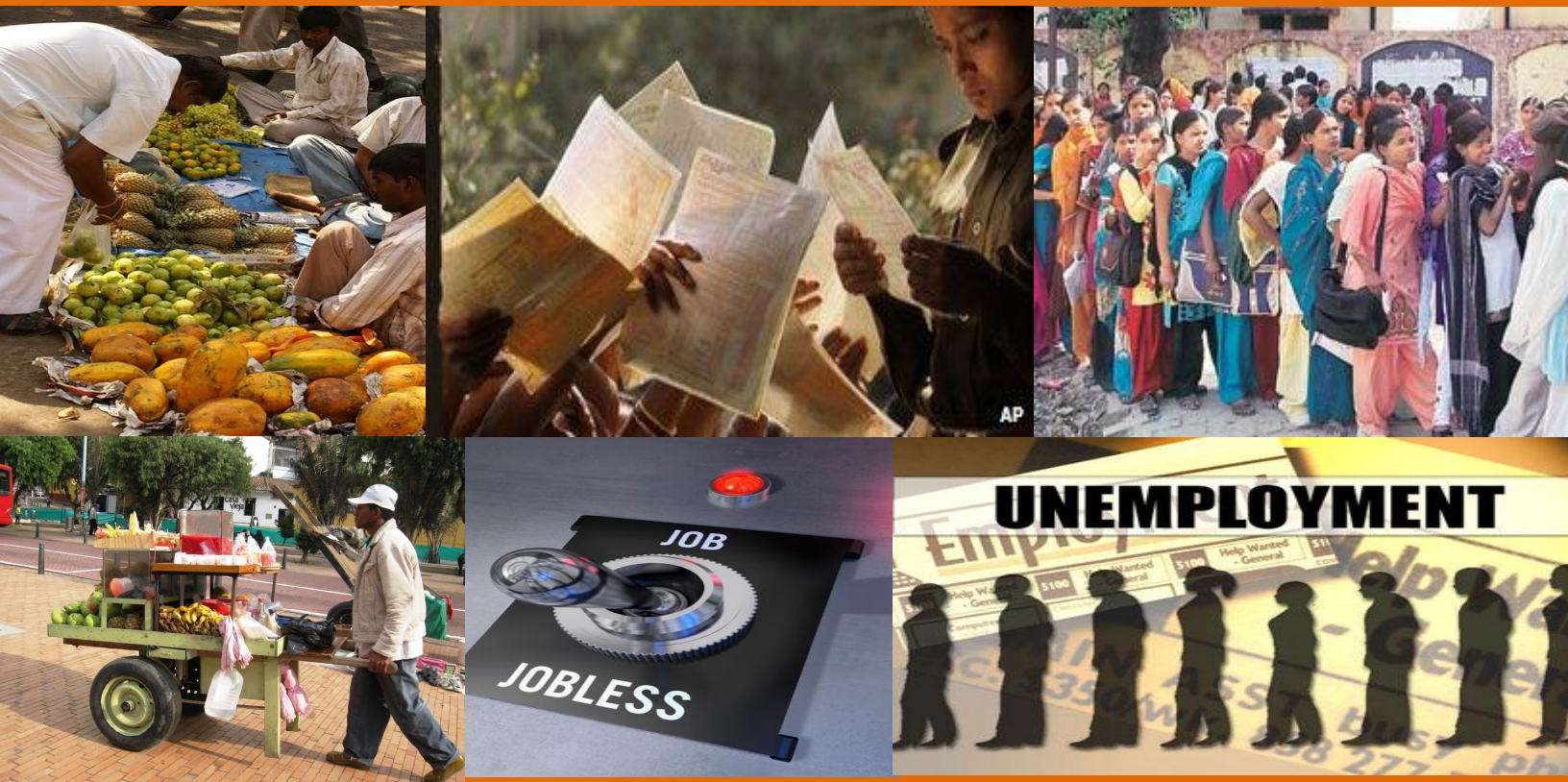


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Joblessness and Informalization: Challenges to Inclusive Growth in India



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Santosh Mehrotra, Ankita Gandhi, Partha Saha, Bimal Kishore Sahoo*

Abstract

Creation of decent jobs outside of agriculture is one of the biggest challenges that confront the policy makers trying to achieve 'faster, sustainable and more inclusive growth'. The Indian economy has been growing at unprecedented rates but it has been characterized by jobless growth and informalization of job opportunities in the organized sector. The paper tries to assess the employment intensity of output growth through an examination of employment elasticity, and potential for employment generation and decent work during the 12th Five Year Plan (2012-17).

Key words: jobless growth, organized-unorganized sectors, formal-informal employment, informalization, employment elasticity, decent work

Introduction

Employment intensity of growth or elasticity of employment with respect to output is a numerical measure of how employment varies with economic output ó for instance, how much employment growth is associated with 1 percentage point of economic growth. Employment elasticities can provide important information about labour markets. The global employment elasticity figures reported by Kapsos (2005) reveal a decline in the employment intensity of growth during 1991-2003. The sectoral employment elasticities recognize the structural change an economy is going through. The sector GDP elasticity indicates whether employment is growing or shrinking in a given sector, both overall as well as relative to other sectors.

The study by Kapsos (2005) examined the sectoral elasticities at the global level. He showed that all the three sectors have experienced employment growth during 1991-2003, though the elasticity of services employment to GDP was nearly three times as large as the corresponding figure for agriculture and industry. This implies that at the global level there is evidence of structural change, as employment is being generated in the service sector at a considerably faster rate than in the other sectors. However, this structural change has not been

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associated with a net loss in jobs in manufacturing or agriculture. In terms of value-added growth and value-added elasticities, the service sector was both the fastest growing sector and the sector with the most job-intensive growth. Indeed, for every 1-percentage point of growth in service sector value added, employment increased by 0.57 percentage points, while the corresponding figure for agriculture and industry stood at 0.41 and 0.28 percentage points respectively. In agriculture and especially in the industrial sector, value-added growth has been driven more by gains in productivity than by gains in employment as reflected by their elasticities (Kapsos, 2005).

One of the important phenomena in the development process in an economy is the structural shift in the relative importance of different sectors. As the economy modernizes, secondary and tertiary sectors gain importance, and these two sectors are generally associated with higher productivity as compared to the primary sector. In India, the share of industry and services in output has increased sharply within the last 20 years, resulting in their rising share in GDP. The share of agricultural sector is hovering around 15 per cent of GDP (2010). This indeed is a welcome change, and this highlights the growing relative importance of the more productive sectors.

While shift in the share of output is one side of the story, changes in the pattern of employment, both quantitative and qualitative, signify better work conditions, and are important indicators of standard of living. The Indian economy has been experiencing a historically unprecedented rate of economic growth since the last decade which makes India the second fastest growing large economy after China in the world. However, its impact on employment has not always been too encouraging.

On the positive side, there has been a shift in employment in favour of somewhat larger enterprises (by employment). Between 2004-05 and 2009-10, there has been an increase of five percentage points in employment in enterprises employing 20 workers and more (from 11.8 per cent of all non-agricultural workers in 2005 to 17.1 per cent in 2010), along with a decline in employment in smaller enterprises ó those employing less than six workers from 75 to 65.6 per cent (Mehrotra et al., 2012). Further, there has been a consistent increase since 1999-2000 onwards in regular wage/salaried employment (from 58 million in 1999-2000 to 71.7 million in 2009-10), as opposed to casual employment or self-employment.

Among the causes of concern, agriculture still remains the mainstay of livelihood for more than half of the workforce in the country. However, the share of agriculture in total employment has fallen from 57 per cent in 2005 to 53 per cent in 2010, which has been accompanied by an absolute shift in workers from agriculture of 15 million to services and industry. Nevertheless, the process of structural change in employment that one would expect with a period of very rapid, in fact, unprecedented growth in output in the economy outside of

agriculture, is not occurring. The increase by nearly 12 million in manufacturing sector employment in the first half of the decade (2000-2005) was off-set by a decline by 5 million in the second half of the decade (2005-10). Among others, higher wages and more capital intensive technology have been cited as possible explanation for declining employment in the manufacturing sector (World Bank, 2012).

The only non-agricultural sector which has experienced phenomenal growth in employment during the first decade of the millennium is the non-manufacturing sector in general and within this construction in particular. On the other hand, even though the present growth phenomenon is termed to be service-led growth, there has been a rather meager increase of 4 million jobs in this sector between 2005 and 2010. By contrast, employment in services had grown by 18 million between 2000 and 2005.

In an ideal world, productive employment with decent work conditions is what India needs to achieve. One of the objectives in the 12th Five Year Plan, while creating employment, needs to be that the work created should be (a) productive and (b) decent. In India we have clearly deviated from the ideal of generating productive employment. The more productive sectors of the economy (manufacturing and services) have not generated enough employment, despite India experiencing the fastest GDP growth even in its post-independence economic history. One of the objectives of this paper is to examine what has happened to decent work during this period of high economic growth.

Section 1 examines the nature of the structural change that is taking place in employment during the past decade. Section 2 analyses organized and unorganized employment across various sectors. Section 3 provides analysis of formal and informal employment within the organized sector. The last section summarizes the major findings.

1. Structural change in employment during the past decade

One of the most disturbing numbers that the 2009-10 employment-unemployment National Sample Survey (NSS) data show is the addition of merely 2.76 million work opportunities during the period of fastest growth for the economy (Table 1). Compared to this, there was an addition of 60 million to the workforce during 1999-2000 and 2004-05. This section examines the nature of the structural change defined as a shift in the structure of output and of employment away from agriculture to industry and services that has taken place in employment during the past decade using data for three points of time (Table 1).

Agriculture: By 2010 the share of agriculture in GDP had fallen from about 23 per cent in 1999-2000 to 15 per cent. So, 53 per cent of the workforce of India was producing 15 per cent of the economy's output. By contrast, in China the share of the workforce in agriculture had shrunk to

about 39 per cent in 2008 (contributing 11.3 per cent to GDP) from about 50 percent in 2000 (comparable ratio for India was 57 per cent), which was then contributing 15.1 percent to GDP (World Development Indicators, 2012).

In India, despite an absolute decline of 14 million in employment in agriculture during the second half of the decade, the problem remains that total agricultural employment at the end of the decade was still higher than at the beginning of the decade. One would have expected that at least in the allied activities in agriculture ó horticulture, animal husbandry, forestry and fisheries ó there would be an increase in employment. However, it is intriguing that employment in these activities too declined in absolute terms from 50.8 million in 2004-05 to 34.6 million in 2009-10. Since income has been growing rapidly, and the income elasticity of demand for eggs, milk, fish, fruits and vegetables is high, the consumption of these products is increasing. However, employment in these allied agricultural activities has declined. There may be several reasons for this apparently contradictory phenomenon, with reasons varying by sub-sector of non-crop agriculture. For instance, Jha (2006) points out that allied activity in agriculture saw decline in employment (though an increase in value added) even in the 1990s. Since 1997 there has been an absolute decline in cattle and goat population which suggests a reason for decline of employment in the livestock sector. Similarly, fisheries saw a transformation, with marine fisheries losing its dominance to culture fisheries; the latter is less labour-intensive than marine fisheries. A decline in employment in forestry could be on account of a decrease in forest area in the country. A final reason may have to do with the increasing pressure on women's time. Male migration out of rural areas has continued unabated, increasing the feminization of crop agriculture, leaving women with less time to rear poultry or livestock.

Manufacturing: There was an absolute increase in employment in the first half of the decade from 44 million to nearly 56 million in 2004-05. Out of this 12 million increase in employment, 7.5 million was accounted for by textiles, wearing apparel and leather and leather products. This increase of nearly 12 million in manufacturing in the first half of the decade was, however, off-set by a decline by 5 million in the second half of the decade. Most of the manufacturing sub-sectors witnessed a decline in employment.¹

Within the manufacturing sector, the following sub-sectors experienced reasonable increase in total employment: textiles; wearing apparel and leather products; paper and paper products, and publishing and reprinting of recorded media; basic metals; motor vehicles and other transport equipment; furniture; and medical and optical instruments, watches and clocks. These sub-sectors where there was an increase in employment over the decade in manufacturing

¹Among the sectors which balanced this adverse pattern of an absolute decline were: manufacture of furniture, machinery and equipment, radio, television, communication and other transport equipment, and leather and leather products. The hardest hit manufacturing sub-sector alone accounting for a decline of around 3.2 million workers was medical, precision and optical instruments, watches and clocks.

together account for a little over 50 per cent of total employment in manufacturing in 2009-10. These sub-sectors also experienced a robust growth in GVA in the latter half of the decade.

Several major sectors which account for about 10 per cent of the total employment in manufacturing saw no increase in employment or an actual decline: food products and beverages, tobacco products, non-metallic mineral products and fabricated metal products. It is critical, therefore, that both the central government as well as the state governments where the production of these manufacturers is concentrated, must give due attention to support these sectors. In other words, the challenge before the country's policy makers – especially in the New Manufacturing Plan 2012-2022 – is not only to increase the contribution of manufacturing to gross value added in the economy, but also its contribution to employment. The new Manufacturing Plan speaks of the ambitious objective of increasing manufacturing employment from 50 mn. to 100 mn. by 2022, and the contribution of industry to GDP should increase from 15 per cent in 2010 to 25 per cent by 2022. In a context wherein the last decade of rapid economic growth, there has been almost no increase in the contribution of manufacturing to either output or employment in relative terms; the Manufacturing Plan's target seems to be overly ambitious. Given also the threat of exports from manufacturing hubs like China, Thailand and Korea and opening up of free trade with Bangladesh which Indian domestic manufacturers are facing, there is a serious need to review industrial policies to be able to achieve the ambitious targets of the New Manufacturing Policy. While the manufacturing sector has been growing at an unprecedented rate in the 2000s, its growth rate has not been higher than that of GDP (8.4 per cent per annum over 2003-04 and 2010-11).

Non-Manufacturing: Non-manufacturing employment increased by 9 million between 2000 and 2005, while during the second half (2005-10) the increase was by 18 million with a remarkable growth rate of nearly 132 per cent. Construction was the prime mover in this rapid increase in employment, while electricity, gas and water supply witnessed a small increase. The increase in construction employment is guided by the increase in infrastructure investment during the 11th Five Year Plan (2007-12) period from 4 per cent of GDP at the beginning of the Plan to 7.5 per cent of the GDP in the terminal year of the Plan. The target of investment of \$ 500 billion in infrastructure during the 11th Plan was actually achieved. The pull of the construction growth in both rural and urban areas led to workers moving out of agriculture (15 mn. moved out between 2005 and 2010).

Services: The total contribution of services to employment in India is 25.3 per cent (while that of industry is 21.5 per cent, of which 11 per cent is accounted for by manufacturing). The share of services in total GDP (55 per cent in 2009-10) is more than double its share of employment. Its share in non-agricultural employment has however consistently declined from 59 per cent in 1999-2000 to 56 per cent in 2004-05, and further down to 54 per cent in 2009-10. Given the fact that output growth in the Indian economy in the 2000s has been led by both services and industry,

we should be particularly interested in the outcomes in services in respect of employment. Table 1 shows that in the first half of the decade (2000 to 2005), total employment in services increased from 94.2 million to 112.8 million (an increase of 18.6 million). However, in the latter half of the decade (2005-10) there was an increase of only 3.5 million in total employment in services.

Table 1: Employment and change in employment during the decade

Sectors	Employment across various sector(in millions)			Absolute change in employment (millions)		
	1999-2000	2004-5	2009-10	1999-00 to 2004-05	2004-05 to 2009-10	1999-00 to 2009-10
Agriculture	237.67	258.93	244.85	21.26	-14.08	7.18
Manufacturing	44.05	55.77	50.74	11.72	-5.03	6.69
Mining & quarrying	2.17	2.64	2.95	0.47	0.31	0.78
Electricity, gas & water supply	1.13	1.30	1.25	0.17	-0.05	0.12
Construction	17.54	26.02	44.08	8.48	18.06	26.54
Non-manufacturing	20.84	29.96	48.28	9.12	18.32	27.44
Trade and repair	36.63	43.36	43.53	6.73	0.17	6.90
Hotels & restaurants	4.62	6.10	6.13	1.48	0.03	1.51
Transport, storage & communication	14.61	18.47	19.97	3.86	1.50	5.36
Banking (& insurance)	2.25	3.10	3.82	0.85	0.72	1.57
Real estate, renting & Business activities	2.67	4.65	5.75	1.98	1.10	3.08
public administration & defence	10.48	8.84	9.46	-1.64	0.62	-1.02
Education	8.47	11.43	11.85	2.96	0.42	3.38
Health	2.62	3.34	3.59	0.72	0.25	0.97
Other community, social & personal services	9.99	8.75	8.63	-1.24	-0.12	-1.36
Other services	1.86	4.76	3.62	2.90	-1.14	10.39
Services	94.20	112.81	116.34	18.61	3.53	22.14
Total	396.76	457.46	460.22	60.70	2.76	63.46

Source: Calculated from NSS 55th, 61st, and 66th Round, Employment & Unemployment Rounds

If we look at sub-sectors within services, trade and repair is the most important contributor to employment (Table 1). It accounts for more than one-third of the total services

employment in the economy, both at the beginning as well as at the end of the decade. Most of the increase in employment for the sector was accounted for by retail trade. Retail trade alone provided employment to 35.7 million workers in 2009-10. However, like so many other sectors in the second half of the decade, trade too saw a slowdown in the pace of increase in employment. This was primarily due to the global economic crisis.

Education is another important source of service sector employment and it accounted for 10 per cent of the total services employment in 2009-10. Due to government investment in school education, especially the Sarva Shiksha Abhiyan (or Programme to Universalize Elementary Education), there has been an increase in the number of teachers hired by government schools throughout the country. Private school enrolment and hence teacher hiring has also increased. Therefore, it is not surprising that there was an increase in the number of those employed in education from 8.5 million in 1990-2000 to 11.4 million in 2004-05. However, there was hardly any increase in employment in education in the latter half of the decade. This seems slightly counter-intuitive, given that the education sector's growth has remained robust. The growth rate of GVA between 1999-2000 and 2004-05 in education was 7.1 per cent per annum, and it actually increased to nearly 8.4 per cent per annum in the latter half of the decade. Perhaps the increasing budget deficit after the government's four fiscal stimuli between late 2008 and 2009 as a counter-cyclical action in the wake of the global economic crisis of 2009 proved a constraint on government hiring of teachers.

The health sector, which accounts for only a third of the employment generated by the education sector and around 3 per cent total services sector, has witnessed a consistent increase in employment throughout the decade (an increase of about one million workers). It appears that while the growth rate of GVA in health was robust (10.1 per cent per annum) in the first half of the decade, the GVA growth declined to 4.2 per cent per annum in the second half of the decade, which perhaps explains the rather small increase in employment in the health sector in the latter half of the decade. With persistent shortage of health workers even after the National Rural Health Mission started in 2005 there is a possibility that greater thrust by government on the health sector in the 12th Five Year Plan will increase employment in the sector.

With the increasing diversification and growing sophistication of the Indian economy, the share of public expenditure in GDP must continue to rise, since it is well known that, on an average, public expenditure to GDP ratio tends to rise systematically with per capita income. For instance, the share of government in GDP in OECD countries is well over 40 per cent, and in Scandinavian countries over 50 per cent, while that in India is still around 30 per cent of GDP. The historical evidence from the now-industrialized countries is that rise in per capita income will be accompanied by a rise in the size of government, and hence a rise in public sector employment (Lindert, 2004). However, the real issue is whether public employment will increase in the sectors where it is most required, especially for regulatory functions or to improve the

quality of policing, filling vacant posts in the judiciary, increasing the number of teachers in schools, and that of doctors and paramedical staff in the public health system. These are the areas where public employment will need to expand as the economy becomes more complex and the functions required to be performed by government respond to the needs of an emerging market economy. This is an issue that policy-makers must pay heed to.

Employment elasticity of output in India has declined over the last decade of 2000s (it decline from 0.44 to 0.01), on account of which we can argue that the phenomenal growth India has achieved during the last five years or so was jobless growth. The decline in employment elasticity (EE) of non-agriculture sectors (in the first half of the decade it was 0.58 and has declined to 0.18 in the second half) is a matter of serious concern (see Table 2 for estimates of elasticity between 2000 and 2005, and again for the latter half of the decade 2005-10). In the development process, workers should come out of low-productive agriculture sector to higher productive non-agricultural sector. However, this is happening in India at a slower pace, as is evident from declining EE of non-agriculture sector. By contrast, within the non-agriculture sectors, EE of non-manufacturing sector was close to one in the first half of the decade and has crossed one in the second half of the decade. This has resulted in some non-productive employment generation in this sector, particularly in construction. What is interesting is that, in the second half of the decade, manufacturing EE turned negative whereas service sector as a whole and its components have registered a positive EE. In the first half of the decade, within the service sector, education and health sectors had relatively higher EE as compared to other traditional sector² such as Trade, Hotels & restaurants, and Transport, Storage & Communication. The trend remained the same even in the second half of the decade. This is probably because many policies and programmes were introduced by government of India in order to invest in the areas of education and health. Also, other modern service sectors such as Banking (& insurance), and Real Estate employment elasticity is higher than other traditional services in both the time periods (Table 2). This suggests that most of the growth in the workforce absorbed in the service sector is in modern sectors, where productivity is expected to be better, and in that sense we are seeing a trend observed also in more advanced countries like OECD (Eichengreen and Gupta, 2010). It is expected, therefore, that the kind of increase in employment that occurred in services in the first half of the decade (from 94.2 to 112.8 million) is the kind of growth that is likely to be experienced during the 12th Plan period in service sector employment. The second half of the 2000s, which saw a relatively slower increase in employment in the services sector, is unlikely to be repeated over the next five years.

² Modern and traditional sectors are as outlined/suggested by Eichengreen & Gupta (2010).

Table 2: Employment Elasticity in India

Sectors	Employment Elasticity	
	1999-2000 to 2004-05	2004-05 to 2009-10
Agriculture	0.84	-0.37
Manufacturing	0.76	-0.21
Mining & quarrying	0.83	0.55
Electricity, gas & water supply	0.56	-0.11
Construction	0.78	1.19
Non manufacturing	0.92	1.26
Trade	0.35	0.01
Hotels & restaurants	0.53	0.01
Transport, storage & communication	0.48	0.13
Banking (& insurance)	1.25	0.30
Real estate	1.09	0.48
public administration & defense	-0.91	0.16
Education	0.88	0.09
Health	0.51	0.36
Other community, social & personal services	-0.10	0.02
Other services	0.52	0.19
Services	0.45	0.06
Non-Agriculture	0.58	0.18
Total	0.44	0.01

Note: Employment elasticity is the mid-point elasticity.

Source: Computed from Employment data of NSS Unit level data and gross value added from Central Statistical Organization (CSO)

2. Trend in Organized and Unorganized Employment

In this section we discuss the trend in non-agricultural employment ó industry and services ó by organized and unorganized sectors, and formal and informal employment. However, as was noted by National Commission for Enterprises in the Unorganized Sector (NCEUS, 2008), in India there is not a universally accepted definition of unorganized sector. The organized-unorganized dichotomy is often used in a similar context as formal-informal, registered-unregistered or modern-traditional. The present paper has applied the NCEUS definition of organized and unorganized sectors. NCEUS defined organized and unorganized based on enterprise type, number of workers and social benefits. All enterprises under the domain of Government/Public sector; Public/Private Ltd Company; Co-operatives, trust etc. were defined as organized. The enterprise type is organized if it is certifying following two criterions. First: it

is proprietary (male and female); partnership with members from same household or members from different households; and employer's households (i.e., private households employing maid servant, watchman, cook, etc.). Second: number of workers is 10 or more.³ The remaining enterprises are considered as unorganized.

The absolute size of employment in the organized sector increased throughout the period, while it declined in the unorganized sector during the second half of the decade. Therefore, the second half of the decade witnessed a relative increase in the share of employment in the organized sector (Table 3). The increase in organized sector employment is a welcome sign, while slowing down of overall employment growth in the economy is a matter of concern.

Table 3: Employment in Organized and Unorganized Sector (in million)

Year	Organized	Unorganized	Total
1999-2000	54.1 (13.6 %)	342.6 (86.4 %)	396.8 (100 %)
2004-5	62.6 (13.7 %)	394.9 (86.3 %)	457.5 (100.0 %)
2009-10	72.88 (15.8 %)	387.34 (84.2 %)	460.22 (100 %)

Source: for 2009-10, computed from NSS 66th Round, for 2004-05, and 1999-200 NCEUS, 2007

Agricultural sector is almost entirely unorganized. The phenomenal rise in unorganized sector employment during the first half of the decade can be explained by the increase in agricultural employment (by 21 million). Similarly, the decline in unorganized sector employment during the second half of the decade can be largely explained by the steep decline in agricultural employment (by 15 million). Moreover, the share of organized sector within agriculture has declined from 2.2 per cent in 1999-2000 to 1.1 per cent by 2009-10.

On the other hand, the consistent increase in organized sector employment during the decade is driven by the non-manufacturing industry and services sectors.

Organized and Unorganized Employment in Non-agriculture Sectors

Overall, the share of employment in the organized segment in the economy in 2009-10 was 16 per cent, which was an improvement of 2 percentage points as compared to 2004-05 and 1999-2000 (see Table 3). The share of organized employment in each of manufacturing, non-manufacturing, and services is roughly one-third (Table 4). It is due to the overwhelmingly large share of unorganized employment in the agricultural sector (99 per cent of agricultural employment is in the unorganized sector) that the overall share of employment in the

³If enterprise type is not known (missing or other than mentioned above) and employs 10 or more workers, it is considered as organized. When both organized type and number of workers are not known then if the enterprise provides social benefits to its workers, it is organized.

unorganized segment of the economy is so high (84 per cent) (Table 4). Organized enterprises account for 33 per cent of the total non-agricultural employment (Table 5), which is over twice of its share in total employment. Therefore, the objective should be to generate employment in the organized segment of the non-agricultural sectors.

Table 4: Organized & Unorganized Employment in Major Sector (in million), by UPSS, 2009-10

Major Sector	Total Employment	Unorganized Employment	Organized Employment
Agriculture	244.85 (100%)	242.11 (99 %)	2.74 (1 %)
Manufacturing	50.74 (100 %)	34.71 (69 %)	16.03 (31 %)
Non manufacturing	48.28 (100 %)	30.38 (63 %)	17.90 (37 %)
Services	116.34 (100 %)	80.17 (69 %)	36.17 (31 %)
All Sectors	460.22 (100 %)	387.38 (84 %)	72.84 (16 %)

Source: Calculated from NSS 66th Round, Employment & Unemployment Survey, 2009-10

Table 5: Formal and Informal Employment in Non-Agriculture Sector (in Millions) for 2009-10

Workforce	Total	Unorganized	Organized	Share in percentage
Total	460.22	387.34	72.87	100
Formal	33	2.26	30.74	7.2
Informal	427.22	385.08	42.13	92.8
Share in Percentage	100	84.2	15.8	
Non agriculture	215.37	145.23	70.13	100
Formal within Non Agriculture	31.00	2.26	28.74	14.4
Informal Within Non Agriculture.	184.37	142.97	41.39	85.6
Share in Percentage	100	67.4	32.6	

Source: Calculated from NSS 66th Round, Employment & Unemployment Survey, 2009-10

Manufacturing: The not so positive development during the 2000s (noted earlier) is the fact that the number of those employed in manufacturing that increased from 44 million at the beginning of the decade by 11 million to 55.8 million in 2004-05 fell back to 50.7 million by the end of the decade. In the first half of the decade there was a very sharp rise of 30 per cent in unorganized employment in manufacturing, but over 5 million workers in unorganized employment in the

manufacturing sector in 2004-05 had lost their jobs by the end of the decade; as a result, total unorganized manufacturing employment had fallen to 34.7 million. Organized manufacturing, which accounted for 30 per cent of the total manufacturing employment at the beginning of the decade, increased its share to only 31 per cent by the end of the decade. We have noted earlier that organized sector employment constitutes an improvement in the scale of decent work over unorganized sector employment. However over the decade of rapid economic growth there was not any improvement in this regard either.

Construction was by far the most important non-manufacturing sector in terms of employment generation. Table 6 shows that there was a very sharp increase in employment in its unorganized segment throughout the decade. However, the organized segment of construction also witnessed an increase in employment, from 4.6 million to 6.35 million in the first half of the decade. But the most stunning increase is the doubling of employment of organized construction that occurs in the latter half of the decade within a matter of five years from 6.35 to 13 million. This latter increase in organized construction's contribution to employment growth could only be explained by the fact that there was a significant expansion of infrastructure investment during the 11th Five Year Plan period. While most of the increase in unorganized sector employment in construction would be that coming from private development of housing, it is probable that the large scale projects involving the construction of airports, metros, highways and express ways, urban flyovers, and private ports, housing are likely to have involved such huge firms as L&T, Gammon India, GMR and so on ó all of which are likely to have employed workers directly on terms usually applicable in the organized segment, even though their sub-contractors would also generate significant employment in construction in the unorganized segment.

Table 6: Number of workers (in million) by sector, 1999-2000, 2000-05, 2009-10

	1999-2000			2004-05			2009-10		
	Total	Unor- ganized	Orga- nized	Total	Unor- ganize d	Orga- nized	Total	Unor- ganized	Organized
Agriculture	237.67	232.2	5.47	258.93	252.8	6.09	244.85	242.11	2.74
Manufacturing	44.05	30.92	13.13	55.77	39.71	16.06	50.74	34.71	16.03
Mining & quarrying	2.17	0.88	1.29	2.64	0.89	1.75	2.95	1.09	1.86
Electricity, gas & water supply	1.13	0.09	1.04	1.30	0.09	1.21	1.25	0.12	1.13
Construction	17.54	12.92	4.62	26.02	19.66	6.35	44.08	31.1	13.0
Non-Manufacturing	20.84	13.89	6.95	29.96	20.64	9.32	48.28	30.38	17.90
Wholesale &	36.63	34.30	2.33	43.36	41.43	1.93	43.53	40.55	2.98

Retail Trade									
Hotels & Restaurants	4.62	4.08	0.54	6.10	5.29	0.81	6.13	5.22	0.91
Transport, Storage & Communication	14.61	10.44	4.18	18.47	14.02	4.45	19.97	15.09	4.88
Banking & Insurance	2.25	0.49	1.76	3.10	0.80	2.30	3.82	0.89	2.93
Real Estate, Renting	2.67	2.02	0.65	4.65	3.29	1.36	5.75	3.35	2.40
Public administration and defence; compulsory social security	10.48	0.80	9.68	8.84	0.08	8.76	9.46	0.00	9.46
Education	8.47	2.29	6.18	11.43	3.07	8.36	11.85	2.68	9.17
Health	2.62	1.19	1.43	3.34	1.58	1.76	3.59	1.39	2.20
Other community, social & personal services	9.99	8.50	1.49	8.75	7.45	1.30	12.24	11.00	1.24
Total Services	94.20	65.62	28.57	112.81	81.72	31.09	116.34	80.17	36.17
Total Workforce	396.76	342.64	54.12	457.46	394.90	62.57	460.22	387.38	72.84

Source: Calculated from NSS 55th, 61st, and 66th Round, Employment & Unemployment Rounds

Services: Despite significant improvement in the share of gross value added during the past decade (from 49 per cent in 1999-2000 to 57 per cent in 2009-10), services account for only a quarter of overall employment in the economy. Employment creation however remains a major challenge in this sector which has witnessed barely a 4 million increase in employment during the second half of the decade. Therefore, despite a phenomenal increase in employment during the first half of the decade, employment in the services sector remained almost stagnant during the second half. We now discuss employment trends in some of the sub-sectors within services sector.

Wholesale and Retail Trade: Together, these contributed nearly as much in employment as did all of manufacturing taken together. In fact, there was an increase in total employment in wholesale and retail trade from 36.6 million at the beginning of the decade to 43.51 million at its end. The vast majority of those working in wholesale and retail trade are in the unorganized segment. Most of the employment (90 per cent) is generated in retail trade.

Much controversy in India has been centered around allowing foreign direct investment (FDI) in retail trade, in particular, the possible growth of organized retail and the impact it might have on employment on mom and pop stores. The first half of the decade saw a decline in employment in organized retail trade from 1.69 to 0.95 million. However, in the second half of the decade employment in organized retail rose to 1.5 million, which is still less than that prevailing at its beginning (1.69 million). Despite the controversy, in fact, there was an absolute decline in employment in organized retail over the entire decade; unorganized retail trade, however, did see a rise in employment of nearly 4.8 million at the end of the decade as compared to its beginning. Despite its growth after 2005, organized retail still only accounts for not more than 5 per cent of total retail trade. The growth in employment in organized retail between 2005 and 2010 has still not prevented a rise in unorganized segment of retail. In fact, in a period of fast growth in retail output (2005-10) unorganized retail has generated 10 times more unemployment than organized retail. In mid-2012 (at the time of writing this paper) FDI in multi-brand retail trade was still not permitted in India, and hence all the increase in employment in organized retail that took place was due to growing domestic demand for and domestic investment in it. Thus, with the growth of the economy, organized retail employment has grown, and it is likely to grow even further if FDI in organized retail is allowed by the Indian government as others (Jain and Ninan, 2009) have also suggested.

Hotels and restaurants: This sector saw an increase in employment over all, and the contribution of the unorganized segment has remained overwhelming throughout the decade. In fact, the contribution of the organized segment was barely 12 per cent at the beginning of the decade and had merely risen to nearly 13 per cent at its end. As one would expect, the organized segment has risen in absolute and relative terms, but the rise in employment in the unorganized segment was much larger. This would suggest that the 11th Plan's (Planning Commission, 2008) expectation that tourism (which would consist of both hotels and restaurants, as well as transport services for tourists) would be a growth sector during the 11th Five Year Plan period did prove to be correct. One could argue in fact that employment in both organized as well as unorganized segments of hotels and restaurants will continue to rise during the 12th Five Year Plan period.

Banking and insurance: The employment has grown here, consistent with the growth in modern services in an emerging market economy, even while employment elasticity has fallen. This sector also saw a steady increase in employment in both organized and unorganized segments throughout the decade. In fact, one can take it for granted that this segment will go on increasing during the 12th Plan period, given the very low rate of coverage of the population within the banking network, especially the two-thirds of Indian population living in rural areas. With some 50 per cent of the population which is still unbanked, the growth of the branch network on the one hand and the phenomenon of banking correspondents on the other should see a steady growth in employment in the banking sector during the 12th Plan period. At the same time, with growing incomes there is a strong probability that insurance services of all kinds of death,

disability, health ó will go on increasing, just as both private and public insurance companies deepen their penetration into the smaller towns and rural areas.

Real estate, renting, and business activities: Like construction, real estate, renting, and business activities became a boom activity in the first half of the decade, raising employment from 2.67 to 4.65 million in the first half of the decade and yet again to 5.8 million by the end of the decade. While the sharpest increase in real estate services was in the unorganized segment, even organized real estate saw tripling of employment between the beginning and end of the decade. As construction activity expands, with private developers expanding the scope of large cities, and penetrating smaller towns, real estate services will grow hand in hand with the corresponding investment in infrastructure and the growth of the construction industry, enabling the backward and forward linkages between construction and real estate to flourish.

Education and Health: There was a massive increase in investment, public as well as private, in the education sector during the 2000s. Surprisingly, employment in education grew significantly only in the first half of the decade, and there is hardly any change in the second half. In the first half there was about a 3 million increase in education sector employment whereas in the second half only a 0.3 million increase was registered. This reflects the shortage of skills, and the constraints on public education expenditure imposed by the large fiscal deficit of the Central and State governments.

As one would expect there has been a growth throughout the decade of employment in the health sector, a significant proportion of which has been contributed by the organized segment. There has been an increase in public sector employment in the health sector, mainly accounted for by the Central Government's National Rural Health Mission (NRHM). Private medical facilities have also grown at a searing pace. The 12th Plan is expected to see a very sharp increase in public investment in health, from its current level of 1.3 per cent of GDP to over 2 per cent of GDP per annum by the end of the 12th Plan period. Given the concentration of hospital-bed facilities in urban India, the scope for expansion of health sector infrastructure and employment in small towns and rural India is enormous.

In time, one can expect that education and health care also may become India's net exports (just as IT services have become an export industry). In fact, medical tourism to India has already made a good progress. Eichengreen and Gupta (2010) suggest that the experience of other countries indicates that a country becomes a net exporter of services like education and health only when its per capita income exceeds \$ 5000 (in the year 2000 US had reached this threshold level of per-capita income, in terms of purchasing power parity dollars).

The production conditions prevailing in Indian agriculture, with its reserve army of labour, make it highly unlikely to expect any significant movement towards organized

employment in agriculture. Therefore, for the economy as a whole, a shift towards organized employment would require withdrawal of surplus labour force from agriculture to non-agricultural sector. This is precisely what has happened in the second half of the decade, when agricultural employment declined by 14 million. Hence, in the direction towards ensuring productive employment with decent work conditions, the first stage of transition of the workforce from low productive agricultural sectors to higher productive non-agricultural sector is being achieved, albeit at a slow pace.⁴ The surplus labour force from agricultural sector has actually moved into the construction sector which has experienced a surge of 18 million employment opportunities during the second half of the decade.

Equipped with low educational level and extremely low skill base, the surplus labour from agriculture is generally absorbed in the unorganized segment of both industry and services. So, the second stage of transition, namely from unorganized to organized sector, will be achieved with a considerable time lag, and that too will depend on (a) access to education for the marginalized sections, (b) proper implementation of legal provisions, and (c) skill development initiatives undertaken by the government. Bulk of the employment will therefore be concentrated within the unorganized sector, or informal employment in the organized sector.

As discussed earlier, a shift in employment from agriculture (which is almost entirely unorganized) to the organized segment of non-agriculture will be most desirable from the perspective of productivity and decent work. However, organized employment does not always ensure decent work. Despite an increase in organized employment over the years, a large chunk of those employed in the organized sector are deprived of any form of social security benefit. In other words, a large chunk of those employed in the organized sector are informally employed. We now turn to an analysis of formal and informal employment in the organized non-agricultural sector.

3. Formal vs. Informal Employment in Organized Non-Agricultural Sectors

The shift in the share of output and employment from primary sector to secondary and tertiary sectors is a phenomenon which has been witnessed in most parts of the developing world, albeit with certain variations. India is not an exception to it. What makes India different is that the share of informal workers in the total workforce is well above the other emerging market economies ó 93 per cent of all workers compared to 55 per cent in Brazil.

Since independence, the relative importance of secondary and tertiary sectors in terms of both output and employment has been growing. However, in India, when it comes to conditions of work in the wake of the structural shift that is taking place, the story that emerges is not a very pleasant one. Conditions of work have different dimensions ó duration of work, physical

⁴ For a detailed discussion on different stages of transition of workforce, refer to Mehrotra et al. (2012).

conditions of work, wages, nature of work contract, applicability of legislative protection, and occupational hazards. Broadly speaking, these different dimensions of conditions of work can be categorized under two main headings ó formal and informal nature of employment.⁵ While the informal nature of employment is predominant in the unorganized sector of the economy, its prevalence is increasing even within the organized segment as well. This section captures this phenomenon of informalization of workforce within the organized sector during the first decade which has witnessed the fastest output growth since independence. Specifically, we examined formal employment and informal employment within the organized sector.

As already observed, organized employment accounted for only 16 per cent of the overall employment in the economy. Even within this small segment in enterprises, almost half of it is in the form of informal employment. Within the organized segment of non-agricultural enterprises, informal form of employment is the predominant form in the manufacturing sector (Sixty per cent of the organized manufacturing employment is in the nature of informal contract.), and non-manufacturing sector (Eighty per cent of the organized non-manufacturing employment is in the nature of informal contract.). It is only in the services sector that majority (70 per cent) of the organized employment takes the form of formal job contract between the employer and the employee (Table 7). Most of formal service sector employment is in Public Administration and Defence where 87 per cent of all employment in the organized sector is in the nature of formal employment.

Table 7: Formal and Informal Employment within Organized Sector (in million), by UPSS, 2009-10

Sector	Organized Employment	Organized Employment	
		Formal	Informal
Agriculture	<i>2.74</i>	<i>2.00</i>	<i>0.74</i>
Manufacturing	<i>16.03</i>	<i>6.60</i>	<i>9.43</i>
Mining & quarrying	1.86	1.02	0.84
Electricity, gas & water supply	1.13	0.90	0.23
Construction	13.0	1.72	11.28
Non manufacturing	<i>17.90</i>	<i>3.64</i>	<i>14.26</i>
Trade	2.98	1.24	1.74
Hotels & restaurants	0.91	0.30	0.61
Transport, storage & communication	4.88	2.98	1.90
Banking (& insurance)	2.93	2.33	0.60

⁵ Informal employment is defined as that form of employment where the employee is not eligible for any kind of social security benefit like provident fund, gratuity, pension, health care, maternity benefit etc.

Real estate, Renting and Business Activities	2.40	1.60	0.80
Public administration & defence	9.46	8.20	1.26
Education	9.17	6.31	2.86
Health	2.20	1.47	0.73
Other Services	1.24	0.50	0.74
Services	<i>36.17</i>	<i>24.93</i>	<i>11.24</i>
All Sectors	72.84	37.17	35.67

Source: Calculated from NSS 66th Round, Employment & Unemployment Survey, 2009-10

In respect of formal and informal nature of employment, construction deserves special mention which experienced phenomenal increase in employment, particularly during the second half of the decade. The increase in employment in construction was experienced by both organized as well as unorganized segments. In the year 2009-10, out of 44 million employed in the construction sector, 31 million were in unorganized and the remaining 13 million were in organized enterprises. Unorganized sector employment is almost entirely informal in nature. Out of 13 million organized employment, 11.3 million (87 per cent) is informal employment. Therefore, out of 44 million total employment in construction, 42 million (31 million unorganized sector + 11 million informal employment in organized sector) hardly have any kind of social security benefit attached with it (see Table 7). In other words, 95 per cent of workers in construction sector hardly have any kind of social security coverage. Undoubtedly, construction driven by significant expansion of infrastructure investment during the 11th Five Year Plan has helped in absorbing surplus workers from agriculture sector. However, ensuring decent employment for those moving out of agriculture remains a big challenge for policy makers during the 12th Five Year Plan period.

Therefore, in addition to the overwhelming presence of the unorganized sector, another daunting and complicated task confronting the policy makers is to address the issue of informal employment within the organized sector. This issue of informalization of employment poses a serious challenge in achieving decent work and thereby achieving more inclusive growth and sustainable development during the 12th Plan period.

4. Conclusion

India has become one of the two large economies of the world that have been growing faster than any other large economy (the other being China). It is now the fourth largest economy of the world in purchasing power parity terms. However, employment in total and in non-agricultural sectors has not been growing. This jobless growth in recent years has been accompanied by growth in casualization and informalization.

Total employment in manufacturing in India increased from 44 million in 1999-2000 to 55 million in 2004-05, falling to 51 million by 2009-10. Most of the increase in the first half and decrease in the second half of the decade was accounted for by manufacturing employment in the unorganized segment of the industry, although there was some increase in the organized segment as well. Within the organized segment, formal employment has been growing at the expense of the informal employment. The conclusion appears to be not only that the organized segment's growth in employment has been marginal, despite a sustained growth rate of manufacturing GVA over the decade, but also that the distribution of employment between formal and informal segments suggests that at least half of the employment in organized manufacturing remained of an informal nature. The reasons for this trend, continuing from an earlier period, could lie in a number of factors (labour laws, technology up-gradation being largely confined to the organized segment, tax laws, among other reasons), but that is a subject for further research, which must be undertaken if an appropriate policy response is to be drafted by the Central and the State governments during the 12th Five Year Plan.

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