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# Turnaround in India's Employment Story

## Silver Lining amidst Joblessness and Informalisation?

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Creation of decent jobs outside agriculture is one of the biggest challenges that confront policymakers trying to achieve "faster, sustainable and more inclusive growth". The Indian economy grew at unprecedented rates during the Tenth (2002-07) and Eleventh (2007-12) Five-Year Plan periods, but it has been characterised by jobless growth and informalisation of jobs in the organised sector between 2004-05 and 2009-10. However, findings from the latest employment and unemployment survey of the National Sample Survey Office (2011-12) seem to suggest a reversal of joblessness with a significant increase in non-agricultural employment. The paper tries to assess the employment intensity of output growth through an examination of employment elasticity, and potential for employment generation during the Twelfth Five-Year Plan (2012-17).

Employment intensity of growth or elasticity of employment with respect to output is a numerical measure of how employment varies with economic output – for instance, how much employment growth is associated with 1 percentage point of economic growth. Employment elasticities can provide important information about labour markets. Global employment elasticity figures (Kapsos 2005) reveal a decline in employment intensity of growth between 1991 and 2003. The sectoral employment elasticities recognise the structural changes an economy is going through. Sector-wise data on employment intensity of growth indicates whether employment is growing or shrinking in a given sector, as well as relative to other sectors.

An examination of sectoral elasticities at the global level by Kapsos (2005) showed that all the three sectors (primary, secondary and tertiary) have experienced employment growth during 1991-2003, though the elasticity of services employment to gross domestic product (GDP) was nearly three times as large as the corresponding figures 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.

This structural change has not been 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 (ibid).

One important phenomenon in the process of development in an economy is the structural shift in the relative importance of different sectors. As the economy modernises, 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 services in output has increased sharply within the last 20 years, resulting in their share in GDP rising from 43% of GDP in 1990-91 to 57% in 2010-11. The share of the agricultural sector has declined from 33% of GDP in 1990-91 to 15% of GDP in 2009-10, while the

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industry sector's share in GDP is hovering around 24%-26% between 1990-91 and 2009-10.

While the shift in 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 unprecedented rates of economic growth since the last decade, which makes India one of the fastest growing large economies in the world, second only to China. 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 5 percentage points in employment in enterprises employing 20 workers and more (from 11.8% of all non-agricultural workers in 2005 to 17.1% in 2010), along with a decline in employment in smaller enterprises – those employing less than six workers from 75% to 65.6% (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% in 2005 to 53% in 2010, which has been accompanied by an absolute shift of 14 million workers from agriculture to services and industry. This absolute decline in the number of workers in agriculture occurred for the first time in the history of independent India. 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 was not occurring.

However, the pace of structural transformation accelerated post-2010. The share of agriculture in total employment has fallen by 4 percentage points (a decline comparable to that achieved in the previous five-year period) in two years from 53% in 2009-10 to 49% in 2011-12. During 2009-10 and 2011-12, 13 million workers withdrew out of agriculture. That is nearly as large as the absolute decline in workers in agriculture (14 million) that occurred between 2004-05 and 2009-10. There was no absolute decline in agricultural employment between Independence and 2004-05, which began after 2005 for the first time in Indian history. This decline has intensified since 2010.

Manufacturing sector employment remains a concern, despite rapid manufacturing-output growth. The increase by nearly 12 million in manufacturing sector employment in the first half of the decade (2000-05) was offset by a decline of 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. The 18 million increase in jobs in the construction sector were offset by the 5 million decline in manufacturing sector, resulting in industrial employment increasing by 13 million in the period 2005-10. The 68th round data suggests that industrial employment has increased by 15.7 million during 2010-12. The disaggregated data for 2011-12 brings good news for India's manufacturing sector. It suggests that employment in manufacturing rose by 8.9 million in this two-year period, while non-manufacturing (mostly accounted for by construction) rose by 6.8 million. This clearly is a turnaround from the previous five-year period which brought forth concerns over an absolute decline in workers engaged in manufacturing sector.

On the other hand, even though the present growth phenomenon is termed to be service-led growth, there has been a rather meagre increase of 4 million jobs in this sector between 2005 and 2010 when services sector grew by about 10% per annum. In contrast, employment in services had grown by 18 million between 2000 and 2005. The data for 2011-12 shows that the services employment has increased by an overwhelming 11 million in this two-year period between 2009-10 and 2011-12 – a significant acceleration in job creation, compound to the latter half of the previous decade.

In an ideal world, "productive employment" with "decent work" conditions is what India needs to achieve. One of the objectives in the Twelfth 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 experiencing the fastest GDP growth in post-Independence economic history. One of the objectives of this paper is to examine what has happened to formal employment 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 up to 2009-10, for which disaggregated data is available. Section 2 analyses organised and unorganised employment across various sectors. Section 3 provides analysis of formal and informal employment within the organised sector. The last section summarises the major findings.

## 1 Structural Change in the Past Decade

One of the most disturbing numbers that the 2009-10 employment and unemployment survey data shows is the addition of merely 2.76 million work opportunities during the period of fastest growth for the economy (Table 1, p 89). Compared to this, there was an addition of 60 million to the workforce during 1999-2000 and 2004-05. Estimates of workforce have been obtained by applying the multiplier of census population estimates to the projections by National Sample Survey (NSS) employment and unemployment survey. 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).

### 1.1 Agriculture

By 2010 the share of agriculture in GDP had fallen from about 23% in 1999-2000 to 15%. But 53% of the workforce of India was producing 15% of the economy's output. By contrast, in China the share of the workforce in agriculture had shrunk to about 39% in 2008 (contributing 11.3% to GDP) from about 50% in 2000 (comparable ratio for India was 57%), which was then contributing 15.1% to GDP (World Development Indicators 2012).

In India, despite an absolute decline of 14 million in employment (which is why the employment elasticity is negative) 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 – horticulture, animal husbandry, forestry and fisheries – 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

**Table 1: Employment and Change in Employment during the Decade**

Sectors	Employment across Various Sectors (in million)			Absolute Change in Employment (million)		
	1999-2000	2004-05	2009-10	1999-2000 to 2004-05	2004-05 to 2009-10	1999-2000 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 and quarrying	2.17	2.64	2.95	0.47	0.31	0.78
Electricity, gas and 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 and restaurants	4.62	6.10	6.13	1.48	0.03	1.51
Transport, storage and communication	14.61	18.47	19.97	3.86	1.50	5.36
Banking (and insurance)	2.25	3.10	3.82	0.85	0.72	1.57
Real estate, renting and business activities	2.67	4.65	5.75	1.98	1.10	3.08
Public administration and 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 and 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	1.76
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: Using usual principal and subsidiary status (UPSS) calculated from NSS 55th, 61st, and 66th Rounds, Employment and Unemployment Rounds.

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 feminisation of crop agriculture, leaving women with less time to rear poultry or livestock (ibid).

### 1.2 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, offset by a decline by 5 million in the second half of the decade. Most of the manufacturing sub-sectors witnessed a decline in employment.<sup>1</sup>

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 together account for a little over 50% of total employment in manufacturing in 2009-10. These sub-sectors also experienced a robust growth in gross value added (GVA) in the latter half of the decade.

Several major sectors which account for about 10% 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, should give due attention to support these sectors in terms of infrastructure, technology and credit so as to provide an enabling environment for creating more jobs in this sector.

In other words, the challenge before the country's policy-makers – especially in the New Manufacturing Plan 2012-22 – is not only to increase the contribution of manufacturing to GVA in the economy, but also its contribution to employment. The New Manufacturing Plan speaks of the ambitious objective of increasing manufacturing employment from 50 million to 100 million by 2025, and the contribution of industry to GDP should increase from 15% in 2010 to 25% by 2022. In the context of the last decade of rapid economic growth, which has seen 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 competition

from manufacturing hubs like China, Thailand and Korea and the opening up of free trade with Bangladesh – all of which threaten Indian domestic manufacturers – there is a serious need to review industrial policies to be able to achieve the ambitious targets of the New Manufacturing Plan. 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 annum over 2003-04 and 2010-11).

### 1.3 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%. 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 Eleventh Five-Year Plan (2007-12) period from 4% of GDP at the beginning of the Plan to 7.5% of the GDP in the terminal year of the Plan. The target of investment of \$500 billion in infrastructure during the Eleventh Plan was actually achieved. The pull of construction growth in both rural and urban areas led to workers moving out of agriculture (14 million moved out between 2005 and 2010).

### 1.4 Services

The total contribution of services to employment in India is 25.3% in 2009-10 (while that of industry is 21.5%, of which 11% is accounted for by manufacturing). The share of services in total GDP (55% in 2009-10) is more than double its share of employment. Its share in non-agricultural employment has however consistently declined from 59% in 1999-2000 to 56% in 2004-05, and further down to 54% 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 (2000-05), 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.

If we look at sub-sectors within services, traditional sources like trade and repair are 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. Of the 116 million in services, 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 organised retail employment. Even the output growth slowed down for the sector in the wake of the global economic crisis (which led to contraction in consumer demand) and rising input costs, especially real estate. Employment in the unorganised retail sector declined in absolute terms.

### 1.4.1 Education and Health

Education is another important source of service sector employment and it accounted for 10% of the total services employment in 2009-10. Due to government investment in school education, especially the Sarva Shiksha Abhiyan (or Programme to Universalise 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 annum, and it actually increased to nearly 8.4% per annum in the latter half of the decade.

The health sector, which accounts for only a third of the employment generated by the education sector and around 3% of the 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 annum) in the first half of the decade, the GVA growth declined to 4.2% 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 (NRHM) started in 2005, there is a possibility that greater thrust by the government on the health sector in the Twelfth Five-Year Plan will increase employment in the sector. Health sector expenditure by the central and state governments is expected to rise from 1% of GDP in the Eleventh Plan to 2.5% by the end of Twelfth Five-Year Plan.

### 1.5 Employment Elasticity

With increasing diversification and growing sophistication of the Indian economy, the ratio of public expenditure to 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 Organisation of Economic Co-operation and Development (OECD) countries is well over 40%, and in Scandinavian countries over 50%, while in India it is still around 30% of GDP. Historical evidence from the now-industrialised countries is that a 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).

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 the government must

**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 and quarrying	0.83	0.55
Electricity, gas and water supply	0.56	-0.11
Construction	0.78	1.19
Non-manufacturing	0.92	1.26
Trade	0.35	0.01
Hotels and restaurants	0.53	0.01
Transport, storage and communication	0.48	0.13
Banking (and insurance)	1.25	0.30
Real estate	1.09	0.48
Public administration and defence	-0.91	0.16
Education	0.88	0.09
Health	0.51	0.36
Other community, social and 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

Employment elasticity is the midpoint elasticity.

Source: Computed from Employment data from NSS unit level data and gross value added from Central Statistical Office (CSO).

respond to the needs of an emerging market economy. This is an issue that policymakers must pay heed to, especially to improve the governance and administration of public services.

Employment elasticity of output (defined as employment growth for 1% growth in gVA) in India has declined over the last decade of the 2000s (it declined from 0.44 to 0.01), on account of which, we can argue that the phenomenal growth rates India has achieved during the last five years or so was jobless growth. The decline in employment elasticity (EE) of non-agricultural 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 the low-productivity agricultural sector to higher productivity non-agricultural sectors.

This is happening in India at a slow pace, as is evident from declining EE of the non-agriculture sector. By contrast, within the non-agricultural 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 unproductive employment generation in this sector, particularly in construction. Employment elasticity in case of construction increased from 0.78 during 2000-05 to 1.19 during 2005-10, which shows that employment growth in the sector was more than the growth in value added by the sector implying low productivity jobs (EE is the midpoint elasticity of the period).

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 sectors<sup>2</sup> such as trade, hotels and restaurants, and transport, storage and 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 the Government of India in order to invest in the areas of education and health, as compared to the traditional sectors.

In other modern service sectors such as banking (and insurance), and real estate and business activities (information technology (IT), information technology enabled services (ITES), consultancy, etc), the employment elasticity was 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 in more advanced, OECD countries (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 Twelfth Plan period as well. 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 with expansion due to investments in services like education, health and public administration.

## 2 Trends in Organised and Unorganised Employment

In this section we discuss the trend in non-agricultural employment – industry and services – by organised and unorganised sectors, and formal and informal employment. However, as was noted by National Commission for Enterprises in the Unorganised Sector (NCEUS 2008), in India there is not a universally accepted definition of the unorganised sector. The organised-unorganised 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 organised and unorganised sectors. NCEUS defined organised and unorganised based on enterprise type, number of workers and social benefits. All enterprises under the domain of government/public sector; public/private limited company; cooperatives, trust, etc, are defined as organised. The enterprise type is organised if it satisfies two criteria. 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, the number of workers is 10 or more.<sup>3</sup> The remaining enterprises are considered as unorganised.

Ghani et al (2013) observe that the unorganised sectors share in employment has been extremely high and persistent in India, despite high growth rates and structural transformations. The persistence cannot be attributed to diverging trends with some states or industries becoming relatively more organised and others being less so. This persistence of the unorganised sector, according to them, is more systemic and can be explained by the rising employment shares of those state-industries which are experiencing rising unorganised shares.

The absolute size of employment in the organised sector increased throughout the period, while it declined in the

unorganised 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 organised sector (Table 3). The increase in organised 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 Organised and Unorganised Sector** (in million)

Year	Organised	Unorganised	Total
1999-2000	54.1 (13.6)	342.6 (86.4)	396.8 (100)
2004-05	62.6 (13.7)	394.9 (86.3)	457.5 (100)
2009-10	72.88 (15.8)	387.34 (84.2)	460.22 (100)

Bracketed figures are in %.

Source: Using usual principal and subsidiary status (UPSS) for 2009-10, computed from NSS 66th Round, for 2004-05 and 1999-2000, NCEUS (2008).

## 2.1 Agricultural Sector

The agricultural sector is almost entirely unorganised. The phenomenal rise in unorganised 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 unorganised 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 organised sector within agriculture has declined from 2.2% in 1999-2000 to 1.1% by 2009-10.

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

## 2.2 Non-agricultural Sectors

Overall, the share of employment in the organised segment in the economy in 2009-10 was 16%, which was an improvement of 2 percentage points as compared to 2004-05 and 1999-2000 (Table 3). The share of organised employment in each of manufacturing, non-manufacturing, and services is roughly one-third (Table 4). It is due to the overwhelmingly large share of

**Table 4: Organised and Unorganised Employment in Major Sectors, by UPSS, 2009-10** (in million)

Major Sector	Total Employment	Unorganised Employment	Organised 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)

Bracketed figures are in %.

Source: Using usual principal and subsidiary status (UPSS) calculated from NSS 66th Round, Employment and Unemployment Survey, 2009-10.

**Table 5: Formal and Informal Employment in Non-Agricultural Sector for 2009-10** (in million)

Workforce	Total	Unorganised	Organised	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: Using usual principal and subsidiary status (UPSS) calculated from NSS 66th Round, Employment and Unemployment Survey, 2009-10.

unorganised employment in the agricultural sector (99% of agricultural employment is in the unorganised sector) that the overall share of employment in the unorganised segment of the economy is so high (84%) (Table 4). Organised enterprises account for 33% 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 organised segment of the non-agricultural sectors.

## 2.3 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% in unorganised employment in manufacturing, but over 5 million workers in unorganised employment in the manufacturing sector in 2004-05 had lost their jobs by the end of the decade; as a result, total unorganised manufacturing employment had fallen to 34.7 million. Organised manufacturing, which accounted for 30% of the total manufacturing employment at the beginning of the decade, increased its share to only 31% by the end of the decade.

We have noted earlier that organised sector employment constitutes an improvement in the scale of relative decent work due to availability of various social security benefits over unorganised sector employment. However over the decade of rapid economic growth there was not much improvement in this regard either because as will be seen in the next section, most of the increase in organised sector employment has been in the nature of informal contracts.

## 2.4 Construction

This was by far the most important non-manufacturing sector in terms of employment generation. Table 6 (p 93) shows that there was a very sharp increase in employment in its unorganised segment throughout the decade. However, the organised 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 organised 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 organised construction's contribution to employment growth could only be explained by the fact that there was a significant expansion of infrastructure investment during the Eleventh Five-Year Plan period. While most of the increase in unorganised 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 expressways, urban flyovers, and private ports, housing are likely to have involved such huge firms as L&T, Gammon India, GMR and so on – all of which are likely to have employed workers directly on terms usually applicable in the organised segment, even though their subcontractors would also generate significant employment in construction in the unorganised segment.

## 2.5 Services

Despite significant improvement in the share of GVA during the past decade (from 49% in 1999-2000 to 57% 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.

## 2.6 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 unorganised segment. Most of the employment (90%) is generated in retail trade.

Much controversy in India has been centred around allowing foreign direct investment (FDI) in retail trade, in particular, the possible growth of organised retail and the impact it might have on employment in “mom and pop” stores. The first half of the decade saw a decline in employment in organised retail trade from 1.69 to 0.95 million. However, in the second half of the decade employment in organised retail rose to 1.5 million, which is still less than that prevailing at its beginning (1.69 million).

Despite the controversy, there was, in fact, an absolute decline in employment in organised retail over the entire decade; unorganised 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, organised retail still only accounts for not more than 5% of total retail trade employment. The growth in employment in organised retail between

2005 and 2010 has still not prevented a rise in unorganised segment of 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 organised retail that took place was due to growing domestic demand for and domestic investment in it. Thus, with the growth of the economy, organised retail employment has grown, and it is likely to grow even further if FDI in organised retail is allowed by the Indian government as others (Jain and Ninan 2010) have also suggested.

## 2.7 Hotels and Restaurants

This sector saw an increase in employment overall, and the contribution of the unorganised segment has remained overwhelming throughout the decade. In fact, the contribution of the organised segment was barely 12% at the beginning of the decade and had merely risen to nearly 13% at its end. As one would expect, the organised segment has risen in absolute and relative terms, but the rise in employment in the unorganised segment was much larger. This would suggest that the Eleventh 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 Eleventh Five-Year Plan period did prove to be correct. One could argue in fact that employment in both organised as well as unorganised segments of hotels and restaurants will continue to rise during the Twelfth Five-Year Plan period.

## 2.8 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 organised and unorganised segments throughout the decade. In fact, one can take it for granted that this segment will go on increasing during the Twelfth Plan period, given the very low rate of coverage of the population within the banking network, especially the

**Table 6: Number of Workers by Sector, 1999-2000, 2000-05, 2009-10** (in million)

	1999-2000			2000-05			2009-10		
	Total	Unorganised	Organised	Total	Unorganised	Organised	Total	Unorganised	Organised
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 and quarrying	2.17	0.88	1.29	2.64	0.89	1.75	2.95	1.09	1.86
Electricity, gas and 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 and retail trade	36.63	34.30	2.33	43.36	41.43	1.93	43.53	40.55	2.98
Hotels and restaurants	4.62	4.08	0.54	6.10	5.29	0.81	6.13	5.22	0.91
Transport, storage and communication	14.61	10.44	4.18	18.47	14.02	4.45	19.97	15.09	4.88
Banking and 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 and 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: Using usual principal and subsidiary status (UPSS) calculated from NSS 55th, 61st, and 66th Rounds, Employment and Unemployment Rounds.



two-thirds of Indian population living in rural areas. With some 50% 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 Twelfth Plan period.

At the same time, with growing incomes there is a strong probability that insurance services of all kinds – death, disability, health – will go on increasing, just as both private and public insurance companies deepen their penetration into the smaller towns and rural areas. The expansion of banking and insurance services in line with the financial inclusion objective of the government will increase employment in this sector.

### 2.9 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 these services was in the unorganised segment, even organised segment 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 and renting 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. The same is true in case of other business activities like IT, ITES, Consultancy Services, and Media and Entertainment.

### 2.10 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 growth throughout the decade of employment in the health sector, a significant proportion of which has been contributed by the organised segment. There has been an increase in public-sector employment in the health sector, mainly accounted for by the central government's NRHM. Private medical facilities have also grown at a searing pace. The Twelfth Plan is expected to see a very sharp increase in public investment in health, from its current level of 1.3% of GDP to 2.5% of GDP per annum by the end of the Twelfth 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 healthcare 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 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 \$5,000 (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 organised employment in agriculture. Therefore, for the economy as a whole, a shift towards organised employment would require withdrawal of surplus labour force from agriculture to the 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.<sup>4</sup> 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 unorganised segment of both industry and services. So, the second stage of transition, viz, from unorganised to organised sector, will be achieved with a considerable time lag, and that too will depend on (a) access to education for the marginalised 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 unorganised sector, or informal employment in the organised sector.

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

### 3 Formal vs Informal in Non-agricultural Sectors

The shift in the share of output and employment from primary sectors 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. What makes India different is that the share of informal workers in the total workforce is well above the other emerging market economies – 93% of workers are informal workers in India, compared to 55% 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 – duration of work, physical 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 categorised under two main headings – formal and informal nature of employment.<sup>5</sup> While the informal nature of employment is predominant in the unorganised sector of the economy, its prevalence is increasing even within the organised segment as well. This section, using National Sample Survey Office data on employment and unemployment, captures this phenomenon of informalisation of workforce within the organised sector during the last decade that has witnessed the fastest output growth since Independence. Specifically, we examined formal employment and informal employment within the organised sector.

As already observed, organised employment accounted for only 16% of the overall employment in the economy. Even within this small segment, almost half of it is in the form of informal employment. Within the organised segment of non-agricultural enterprises, informal employment is predominant in the manufacturing sector (67% of the organised manufacturing employment is through informal contracts), and non-manufacturing sector (86% of the organised non-manufacturing employment is through informal contracts). It is only in the services sector that majority (63%) of the organised employment takes the form of formal job contract between the employer and the employee (Table 7). Most of the formal service sector employment is in public administration and defence, where 86% of all employment is formal, followed by banking and insurance where 70% of the organised sector employment is formal.

It is interesting to note that the share of formal employment within the organised sub-sectors of services is higher compared

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

Sector	Organised Employment	Organised Employment	
		Formal	Informal
Agriculture	2.74	0.13	2.62
Manufacturing	16.09	5.36	10.73
Mining and quarrying	1.86	0.92	0.94
Electricity, gas and water supply	1.14	0.89	0.24
Construction	14.86	0.66	14.21
Non-manufacturing	17.86	2.47	15.39
Trade	2.98	0.49	2.49
Hotels and restaurants	0.91	0.15	0.76
Transport, storage and communication	4.88	2.73	2.15
Banking (and insurance)	2.93	2.04	0.89
Real estate, renting and business activities	2.41	1.41	1.00
Public administration and defence	9.45	8.15	1.30
Education	9.16	6.18	2.99
Health	2.20	1.43	0.77
Other services	1.24	0.26	0.98
Services	36.18	22.84	13.33
All sectors	72.87	30.81	42.07

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

to the manufacturing sector. Except for trade, hotels and restaurants and community, social and other services, which are largely in the nature of unorganised employment, the share of formal employment in other organised services sub-sectors is higher than 55%.

In respect of formal and informal nature of employment, construction deserves special mention as it saw phenomenal increase in employment, particularly during the second half of the decade. The increase in employment in construction was experienced by both organised as well as unorganised segments. In the year 2009-10, out of 44 million employed in the construction sector, 31 million were in unorganised and the remaining 13 million were in organised enterprises. Unorganised sector employment is almost entirely informal in nature. Out of the 15 million employed in organised construction, 14 million (96%) are informally employed. Therefore, out of 44 million total employed in construction, 43 million (29 million unorganised sector + 14 million informal employment in organised sector) hardly have any kind of social security benefits (Table 7). In other words, 98% of workers in the construction sector hardly have any kind of social security coverage. Undoubtedly, construction driven by significant expansion of infrastructure investment during the Eleventh Five-Year Plan has helped in absorbing surplus workers from agricultural sector. However, ensuring decent employment for those moving out of agriculture remains a big challenge for policymakers during the Twelfth Five-Year Plan period.

Therefore, in addition to the overwhelming presence of the unorganised sector, another daunting and complicated task confronting policymakers is the issue of informal employment within the organised sector. This issue of informalisation of employment poses a serious challenge in achieving the objective of decent work for all and thereby achieving more inclusive growth and sustainable development during the Twelfth Plan period.

#### 4 Conclusion

India has become one of the largest economies of the world – second only to China – that have been growing faster than any other large economy. It is now the fourth largest economy of the world in purchasing power parity terms. However, economic growth to be more inclusive requires growth in jobs. After a period of jobless growth in the second half of the decade, there seems to appear a silver lining that suggests that the economy can recover from the phenomenon of joblessness, which was accompanied by informalisation.

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 unorganised segment of the industry, although there was some increase in the organised segment as well. Within the organised segment, the share of informal employment has been growing at the expense of the formal employment. The conclusion appears to be not only that the organised segment's growth in employment has been marginal, despite a growth rate of manufacturing in terms of

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 organised manufacturing remained informal in nature. The reasons for this trend, continuing from an earlier period, could lie in a number of factors (labour laws, technology upgradation being largely confined to the organised segment, tax laws, among others), 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 state governments during the Twelfth Five-Year Plan.

Findings from the employment and unemployment survey of 2011-12 however, suggest a reversal of jobless growth. The

latest released data show that total employment in terms of usual status (principal + subsidiary) has increased by 13 million in two years from 460.2 million in 2009-10 to 472.9 million in 2011-12. Also, the structural transformation has gained pace with 13 million workers moving out of agriculture to join industry and services. Non-agricultural employment has increased by 26 million in these two years compared to an increase of 17 million in the previous five-year period. It is also noteworthy that during 2009-10 and 2011-12, regular wage and salaried workers increased by 13 million – an increase comparable to the entire increase in regular workers over the earlier decade.

## NOTES

- 1 Among 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.
- 2 Modern and traditional sectors are as outlined/suggested by Eichengreen and Gupta (2010).
- 3 If enterprise type is not known (missing or other than mentioned above) and employs 10 or more workers, it is considered as organised. When both organised type and number of workers are not known then if the enterprise provides social benefits to its workers, it is organised.
- 4 For a detailed discussion on different stages of transition of workforce, refer to Mehrotra et al (2012).
- 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, healthcare, maternity benefit, etc.

## REFERENCES

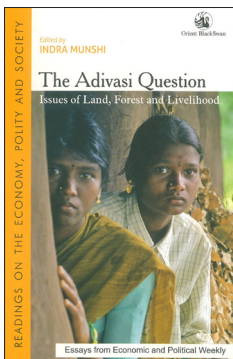
- Eichengreen, B and P Gupta (2010): "The Service Sector as India's Road to Economic Growth?", Working Paper No 249, Indian Council for Research on International Economic Relations, New Delhi.
- Ghani, Ejaz, Kerr, R William and S D O'Connell (2013): "The Exceptional Persistence of India's Unorganised Sector", Policy Research Working Paper 6454, The World Bank, Poverty Reduction and Economic Management Network, Economic Policy and Debt Department.
- Jain, Sunil and T N Ninan (2010): "Servicing India's GDP Growth" in Shankar Acharya and Rakesh Mohan (ed.), *India's Economy Performance and Challenges, Essays in Honour of Montek Singh Ahluwalia* (New Delhi: Oxford University Press), pp 328-65.
- Jha, Brajesh (2006): "Employment, Wages and Productivity in Indian Agriculture", IEG Working Paper Series No E/266/2006, Institute of Economic Growth, New Delhi.
- Kapsos, Steven (2005): "The Employment Intensity of Growth: Trends and Macroeconomic Determinants", International Labour Office, Employment Trends Unit, Employment Strategy Department, ILO, viewed on 1 August 2013 [http://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---emp\\_elm/documents/publication/wcms\\_143163.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_elm/documents/publication/wcms_143163.pdf)

- Lindert, P H (2004): *Growing Public: Social Spending and Economic Growth since the Eighteenth Century* (Cambridge: Cambridge University Press).
- Mehrotra, Santosh, Ankita Gandhi, Bimal Kishore Sahoo and Partha Saha (2012): "Creating Employment during the 12th Plan", *Economic & Political Weekly*, 47(19), pp 63-73.
- National Commission for Enterprises in the Unorganised Sector (NCEUS) (2008): "Report on Definitional and Statistical Issues Relating to Informal Economy", viewed on 1 July, <http://nceus.nic.in/>
- Planning Commission (2008): *Towards Faster and more Inclusive Growth, 11th Five-Year Plan* (New Delhi: Oxford University Press).
- World Bank (2012): "More and Better Jobs in South Asia", The International Bank for Reconstruction and Development, The World Bank, Washington DC.
- World Development Indicators (2012): The World Bank, <http://data.worldbank.org/data-catalog/world-development-indicators> accessed on 20 August 2013.

## The Adivasi Question

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Depletion and destruction of forests have eroded the already fragile survival base of adivasis across the country, displacing an alarmingly large number of adivasis to make way for development projects. Many have been forced to migrate to other rural areas or cities in search of work, leading to systematic alienation.

This volume situates the issues concerning the adivasis in a historical context while discussing the challenges they face today. The introduction examines how the loss of land and livelihood began under the British administration, making the adivasis dependent on the landlord-moneylender-trader nexus for their survival.

The articles, drawn from writings of almost four decades in EPW, discuss questions of community rights and ownership, management of forests, the state's rehabilitation policies, and the Forest Rights Act and its implications. It presents diverse perspectives in the form of case studies specific to different regions and provides valuable analytical insights.

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