

Employment and Poverty in India during the 1990s

Is There a Diverging Trend?

In an otherwise win-win situation of increasing growth and declining poverty in the 1990s, the phenomenon of jobless growth has been disquieting as well as puzzling. This study focuses on the observed inverse relation between poverty and unemployment, which holds both at the aggregate level as also at various cross-sections. The jobless growth of the 1990s, in general, and more so for agriculture, arguably contained the extent of underemployment and contributed to declining poverty. Continuing employment generation in the unorganised sector, albeit at a decelerated pace, coupled with increasing productivity also played a role. While there has been increasing casualisation of employment, the real wage rate increased sharply amongst casual labourers in rural India, possibly as an offshoot of public employment programmes and declining general prices for agricultural/rural labourers. Interstate remittances, as also those from abroad, could have also made possible the emergent configuration of declining poverty, increasing unemployment and decelerated growth at the state level.

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I Introduction

It is widely recognised that the post-reform growth experience has been marked by a significant increase in the growth rate of the economy.¹ The resurgence in growth and its increasing resilience since the early 1990s also has its reflection in social sector achievements, in general, and poverty reduction, in particular. All these gave rise to some hopes that growth did trickle down or that the reforms in India happened with a human face. In this win-win situation of higher growth and lower poverty, a doubt has been cast in recent times about the somewhat not-so-bright scenario for employment, or what is often called the jobless growth.² While the phenomenon of jobless growth is quite common in the developed world, its arrival in a developing country as populated as India is obviously unwelcome. In order to better appreciate the context of the dynamics between growth, poverty and unemployment, consider the following three basic sets of numbers:

(i) Average GDP growth increased to 6.2 per cent per annum from 1992-93 to 2003-04, from 5.6 per cent per annum during the period 1980-81 to 1990-91; the differences are also noticeable in terms of per capita GDP growth: 4.2 per cent per annum in the recent period vis-à-vis 3.2 per cent per annum during the 1980s.

(ii) The headcount poverty ratio, in a span of just five years, declined dramatically to 26.1 per cent in 1999-2000 from 36.0 per cent in 1993-94. In contrast, it took as many as 10 long years to make a dent in the poverty ratio from 44.5 per cent in 1983 to 36.0 per cent in 1993-94. While the official estimates on poverty are enmeshed in a controversy on a number of methodological issues, it is now established beyond doubt that there has been a non-negligible decline in India's poverty in 1990s.³

(iii) As per the results of the 55th round (1999-2000) of the quinquennial survey of the National Sample Survey Organisation (NSSO), the rate of growth of employment, on a current daily status (CDS) basis, declined from 2.67 per cent per annum in 1983-94 to 1.07 per cent per annum in 1994-2000. The all-India survey on the employment and unemployment situation (January-June 2004) conducted by the NSSO as part of the 60th round has also placed the unemployment rate in 2004 higher than the level in 1993-94 (*Economic Survey*, GoI, 2005-06).

Employment promotion and poverty alleviation are often viewed as complementary policy goals and thus, involving no trade-offs. Seen from this perspective, are the above-mentioned statistics consistent? If growth impetus had led to a reduction in the incidence of poverty, then wouldn't one expect unemployment also to go down? After all, the inclusion of people in the non-poor pool could mean an inclusion in the employed pool as well. Or, is the distributive mechanism working so well that it led to a reduction in the incidence of poverty even without commensurate employment growth? Is there some sort of a confusion between rates of changes, absolute numbers and proportions in the whole story? Are we able to explain a scenario of high growth – low poverty – low employment? Is there a missing link in the story? The present paper raises some of these questions, without necessarily claiming to provide an explanation to the riddle.

The rest of the paper is organised as follows. Section II presents a select survey of the literature on the interrelationship between employment and poverty from a theoretical as well as empirical angle with special reference to India. Section III starts with a digression on employment followed by stylised facts on poverty and employment, both at the aggregate and cross-sectional levels, relating to a number of taxonomic attributes such as, rural and urban, male and female, expenditure class, education level and

regional patterns. The international evidence on the interrelationship between poverty and employment is also provided in a cross-country setting. Section IV looks for plausible explanations of the emergent relationship between employment and poverty. The concluding observations are presented in Section V.

II

Relation between Poverty and Unemployment

A Select Review of Literature

What is the relationship between employment and poverty? In a world where sustained economic growth had led to a reduction in the incidence of poverty one could a priori expect a reduction in unemployment as well. In fact, the central importance of employment for upholding the right to life or prosperity has long been recognised in early development literature [e.g., Rosenstein-Rodan 1943]. Nonetheless, economic growth involves structural changes and is marked by a process of Schumpeterian creative destruction – new skills get developed based on the demands of the new growth process and old skills face natural death. In the process, the economy could encounter a growth process of jobless variety. An important question in this context has been: can jobless growth be accompanied by a reduction in the incidence of poverty? The answer to this question is not obvious. After all, the incidence of poverty can be influenced by a surge in growth at least in two ways, viz, (a) involvement of the “poor” labour in the productive process and (b) an improved redistributive process. While under (a) there is a reduction in unemployment, this is not necessarily so under (b). What could then be the nature of relationship between poverty and unemployment?

A Mutually Reinforcing Relationship or a Trade-off?

At the macro-level, the linkages between growth and poverty can be conceptualised in terms of the average productivity of the employed workforce, which gets reflected in the level of real wage or earning in self-employment [Islam 2004]. A low average productivity can be due to the deficiency in capital relative to labour and the use of outdated technology. When high rates of economic growth lead to sustained enhancement in the productive capacity, there are possibilities of generation of employment opportunities with rising productivity. This could very well occur across the board, leading to higher income for the poor. The higher employment will lead to a higher spending on health or education, which would enhance further productive capacity and finally economic growth. Thus, by implication, the relationship between poverty and unemployment could be a vicious one in the absence of growth.

Islam (2004) employed a simple cross-country model whereby “annual change in incidence of poverty” was sought to be explained in terms of two crucial variables, viz, (a) GDP growth and (b) employment elasticity with respect to output and found fairly strong impact from both the independent variables.⁴ Nevertheless, based on growth and poverty reduction in select countries, Islam (2004) argued that, “there is no invariant relationship between growth and poverty reduction”, and that “developments in employment and labour markets...play an important role in producing such varying results in poverty reduction”.

A vicious cycle between poverty and unemployment is, by no means, the only possibility. An inverse relationship between poverty and unemployment could also be rationalised as follows: reduction in unemployment requires a fall in real wages, which may lead to a lowering of real income and therefore could lead to an increase in poverty. The trade-off may be particularly steep if the expansion in employment (induced by lower real wages and output growth) is skewed toward low-paying jobs, implying that the end result is an increase in the number of “working poor”, despite the fall in unemployment [Agenor 2003]. There is still another view according to which unemployment and poverty are jointly endogenous; and if unemployment and poverty are indeed simultaneously determined, the correlation between them will be driven by factors that are likely to vary from sample to sample, depending on the sources of shocks that prove to be dominant. Adverse wage shocks may be an important source for negative correlation between unemployment and poverty over time.⁵ Productivity shocks, in particular, may affect the unemployment-poverty relation, either positively or negatively. Illustratively,

Table 1: Poverty Ratio and Unemployment Rate
(Per Cent)

	Poverty	Unemployment			
		UPS	UPSS	CWS	CDS
1977-78	51.3	4.23	2.47	4.48	8.2
1983	44.5	2.77	1.90	4.51	8.3
1987-88	38.9	3.77	2.62	4.80	6.1
1993-94	36.0	2.56	1.90	3.63	6.0
1999-2000	26.1	2.81	2.23	4.41	7.3

Notes: UPS: Usual principal status; UPSS: Usual principal and subsidiary status; and CW/DS: Current weekly/ daily status.

Source: Planning Commission (2001).

Table 2: Unemployment Rate and Poverty Ratio, Rural and Urban Areas
(Per Cent)

Year	Rural Areas		Urban Areas	
	Unemployment Rate (CDR)	Poverty Ratio	Unemployment Rate (CDR)	Poverty Ratio
1977-78	7.7	53.1	10.3	45.2
1983	7.9	45.7	9.5	40.8
1987-88	5.3	39.1	9.4	38.2
1993-94	5.6	37.3	7.4	32.4
1999-2000	7.2	27.1	7.7	23.6

Source: Planning Commission (2001).

Table 3: Unemployment Rate and Poverty Ratio: Cross-Country Profile for Year 1999
(Per Cent)

Country	Unemployment Rate	Poverty Ratio
Australia	7.0	...
Bangladesh (2000)	3.3	36.0
Brazil (2001)	9.4	8.17
China	3.1	17.8
India	4.4	26.1
Indonesia	6.4	14.7
Korea (1998)	7.0	2.0
Malaysia (1997)	2.5	2.0
Pakistan (1998)	5.9	13.4
Philippines (2000)	10.1	15.5
Sri Lanka (2000)	8	7.6
UK	6.0	...
US	4.2	...

Source: World Bank Development Indicators Online.

a positive productivity shock may raise labour demand and put upward pressure on wages, thereby lowering both unemployment and poverty. But if wages cannot adjust as a result of the binding minimum wage (say), then there could an increase in the number of unemployment. In a growth context, a negative correlation between unemployment and poverty may also emerge from an ambiguous relationship between growth and unemployment, depending on the source of the underlying shock.⁶

Econometrically, Agenor (2003) used distinct techniques, viz, a VAR model and a regression model. While the impulse responses for Brazil and Chile indicated no short-run trade-off between output gap, cyclical component of aggregate unemployment rate, real minimum wage and poverty gap (average shortfall in income of the poor from national poverty line multiplied by the headcount index), the regression results, by contrast, do show a negative relationship between unemployment and poverty, even after controlling for various other determinants of poverty (inflation, income per capita, macroeconomic stability, and the degree of trade openness). Thus, the nature of trade-off remained inconclusive.

Indian Evidence

In the Indian context, the relationship on employment and poverty has attracted the attention of commentators and researchers from time to time, e.g. Sheel (2005). As regards the inter-relationship, Lakdawala (1979) noticed that unemployment rates were comparatively low in many poor regions of the country. On the other hand, Dantwala (1979), Parthasarathy (1978) and Sau (1978) observed a positive relationship between unemployment rate and incidence of poverty. Visaria (1980) also found evidence of a positive relationship particularly when the analysis was conducted based on the distribution of households by monthly per capita expenditure levels. However, the relationship between poverty and open unemployment turned out to be uncertain, if not inverse, particularly in terms of later data [Papola 1992]. Unemployment was not necessarily found to be positively associated with poverty even after using its aggregate measure including open and underemployment. Sundaram and Tendulkar (1988) noted that being unemployed as a “principal activity” over a long period was an ill-affordable luxury for rural males in the poor households. Using different measures of unemployment, Dev et al (1994) found no significant association between incidence of poverty and usual status unemployment rate but a significant positive relationship in terms of the person-day unemployment rate. Applying pooled time-series and cross-section regressions to state-wise poverty estimates, Sen (1998)

observed a significant positive relationship between poverty and person-day unemployment rate even though the elasticity of poverty to unemployment turned out to be small. Besides, it was argued that employment should be related (negatively) to poverty rather than unemployment because of the tendency of people (especially women) to withdraw from the labour force when jobs are not available.

Given the fact that a large part of poverty is an outcome of low productivity and low income employment rather than unemployment as such, the empirical relationship between poverty and employment has often posed a paradox. Explanations of this puzzle have ranged from questioning the poverty data or the employment data or have involved putting a great deal of emphasis on the supposed dynamism of rural non-agriculture. Sen (1998), however, identified the rising trend in real agricultural wages since the mid-1970s as the main mechanism for poverty reduction in the wake of the shift of rural workers into non-agriculture, the tightening of the agricultural labour market and increased labour productivity. In a similar vein, Sundaram (2001a) attributed the decline in poverty ratio in 1999-2000 over 1993-94 to the sizeable and broad-based growth in average daily wage earnings in real terms and the rise in the number of days worked by female workers. While broadly subscribing to the earlier view, Sundaram (2001b) placed the order of decline in the poverty ratios as per

Table 5: Employment Growth in Organised and Unorganised Sectors
(Per Cent)

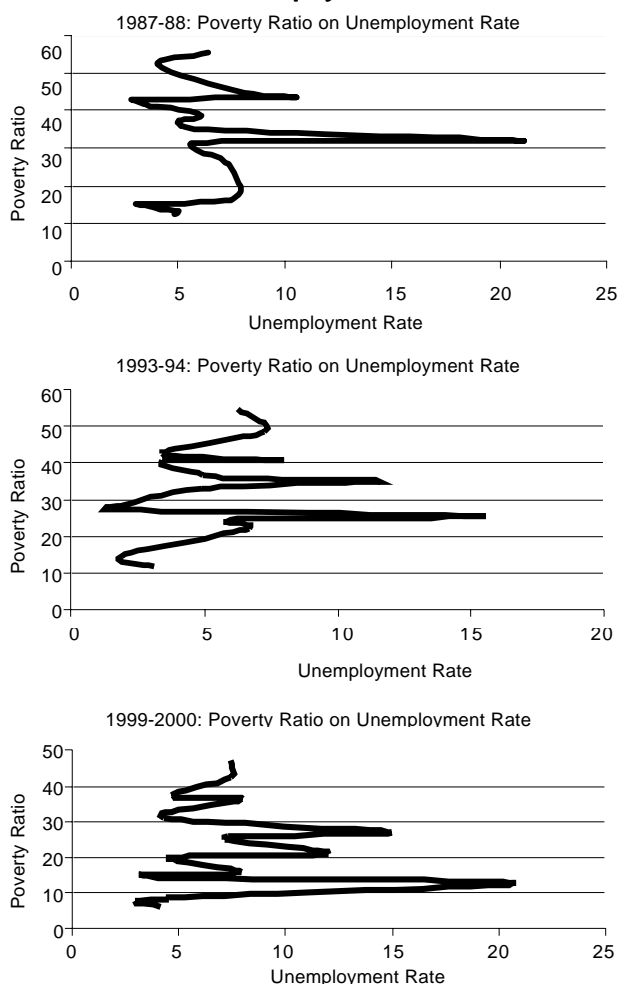
Activity	1999-00		Per Annum Growth during 1994-2000		
	Share in Employment	Organised*	Unorganised**	Overall 1983-94	Overall
Agriculture	56.7	-1.00	0.03	0.02	2.23
Mining and quarrying	0.67	-1.30	-2.40	-1.91	3.68
Manufacturing	12.11	0.87	2.95	2.58	2.26
Electricity, gas and water supply	0.34	0.51	-17.00	-3.55	5.31
Construction	4.44	-0.69	5.85	5.21	4.18
Trade, hotels and restaurants	11.15	1.43	5.79	5.72	3.80
Transport, storage and communication	4.05	0.21	7.59	5.53	3.35
Financing, insurance, real estate and business services	1.38	1.27	8.30	5.40	4.60
Community, social and personal services	9.16	0.8	-3.56	-2.08	3.85
All sectors	100	0.56	1.12	1.07	2.67

Notes: *: DGE&T; **: Derived from NSSO; Employment as per CDS measure. Source: Planning Commission (2001b, 2002).

Table 4: Interrelation between Poverty and Unemployment at Different Levels of Disaggregation

	Poverty				Per Capita Consumption Expenditure	Education Level	State Level	Cross-Country
	Rural	Urban	Male	Female				
Unemployment	Negative							
Rural								
Urban		Negative						
Male			Negative					
Female				Negative				
Per capita consumption expenditure					Negative			
Education level						?		
State level							Negative	
Cross-country								?

Chart 1: State-wise Scatter of Poverty Ratio on Unemployment Rate



the Employment-Unemployment Survey significantly lower than that revealed by the 55th Round Consumer Expenditure Survey.

III Some Stylised Facts

A Digression on Employment

Before exploring the inter-relations between employment and poverty further, it would be pertinent to clarify the key concepts on employment/unemployment used in the Indian literature. This is important since the unemployment statistics are often quite misleading in developing countries, with figures that can be “low enough to put many advanced countries to shame” [Sen 1975: 119]. In evaluating the state of unemployment, we also need to keep in mind that some degree of unemployment is inevitable in any labour market even at the stage of full employment, which is, thus, defined not as one with zero unemployment but with the irreducible minimum unemployment. However, such level of unemployment is yet to be defined in the Indian context.

There are four major sources of information on employment/unemployment in India, each using different definitions of employment/unemployment: (i) the quinquennial

employment-unemployment surveys of the NSSO, (ii) employment exchange registers, (iii) census of the population and (iv) economic census of the Central Statistical Organisation (CSO).

The NSSO surveys being the major data source for the current study, we have focused upon explaining the various concepts used by the NSSO. In line with the recommendations of the Dantwala Committee on Unemployment, the NSSO has enunciated the following four measures of employment and unemployment: *Usual principal status (UPS)*: A person is counted as being in the labour force on principal usual activity basis if he was either engaged in economic activity (work) or reported seeking/being available for work for the major part of the preceding 365 days. Those classified as being in the labour force on this basis are further classified as being employed or unemployed, depending on whether the majority of the days in the labour force were spent in economic activity or in seeking/being available for work. The UPS unemployment rate is, thus, the proportion of those classified as unemployed on this basis, expressed as a percentage of those classified as being in the labour force. On this criterion, persons can be counted as being employed even if they were unemployed (or were outside the labour force) for a significant part of the year. Equally, a person can be counted as unemployed even though he may have been employed for part of the year.

Usual principal and subsidiary status (UPSS): This is a more inclusive measure covering, in addition, the participation in economic activity on a more or less regular basis, of those classified as unemployed on the UPS basis, as also of those classified as being outside the labour force on the same criterion. This would result in a larger proportion of the population being in the labour force, with a higher proportion of workers and lower unemployment rates relative to the UPS criterion.

Current weekly status (CWS): A person is counted as employed if he is engaged in economic activity for at least one hour on any day during the reference week, i.e., the seven days preceding the interview. A person not being engaged in economic activity even for one hour on any day but reporting seeking/being available for work during the reference week is classified as unemployed. To the extent that employment varies seasonally over the year, the labour force participation rates on the CWS basis would tend to be lower. However, reflecting the unemployment during the current week of those classified as being employed on the UPS (and the UPSS) criterion, the CWS unemployment

Table 6: Labour Productivity in Unorganised Sector
(At 1993-94 Prices)

	NDP Per Worker		Worker Productivity Growth per Annum during 1994-2000 (Per Cent)
	1993-94	1999-2000	
Agriculture	11720	14036	3.3
Mining and quarrying	7510	11936	9.8
Manufacturing	13274	17025	4.7
Electricity	13739	56200	51.5
Construction	20245	22940	2.2
Trade, hotels and restaurants	32449	35442	1.5
Transport, storage and communication	24699	33628	6
Financial, insurance, real estate and business services	221929	177737	-3.3
Community, social and personal services	6876	12237	13
All sectors	15284	19474	4.6

Source: CSO and NSSO.

rates would tend to be higher. The difference between the unemployment rates on the CWS and the UPS basis would provide one measure of seasonal unemployment.

Current daily status (CDS): Based on the reported time-disposition of the person on each day of the reference week (in units of half day where needed by the presence of multiple activities within a day), person-days in employment/unemployment are aggregated to generate estimates of person-days in employment/unemployment. The person-day unemployment rate is derived as the ratio of person-days in unemployment to the person-days in the labour force (i.e., person-days in employment plus person-days in unemployment). This measure captures the “within-week” unemployment of those classified as employed on the CWS basis. The CDS measure of unemployment arguably captures the best, open unemployment in the country.

Employment and Poverty: The Macro Picture

What has been the macro trend in employment and poverty? Based primarily on Planning Commission (2001), the unemployment rates and poverty ratios are presented in Table 1. Clearly, the poverty ratio has steadily declined over the years from as high as 51.3 per cent in 1977-78 to 26.1 per cent in 1999-2000. However, the movement in the unemployment rate has been mixed. While it shows year-to-year fluctuation as per the UPS and UPSS measures of unemployment, it indicates initially an uptrend followed by downtrend and its subsequent reversal both as per the CWS and CDS measures. However, as per each of the four measures of unemployment, the unemployment rate declined between 1987-88 and 1993-94 while it increased between 1993-94 and 1999-2000. On the other hand, the poverty ratio declined marginally between 1987-88 and 1993-94 but did so substantially between 1993-94 and 1999-2000. Thus, the relation between unemployment rate and poverty ratio does not seem to be a straightforward one and raises the issue of reconciling lower poverty ratio with higher unemployment rate.

Rural and urban: The coexistence of a higher unemployment rate and lower poverty ratio is not something special for the year 1999-2000 over 1993-94. Rather, the divergent trends in the unemployment rate and poverty ratio are common when seen cross-section wise such as an rural versus urban areas and male versus female persons over the years. While the urban unemployment rate has been consistently higher than the rural rate, the urban poverty ratio has been lower than the rural poverty ratio (Table 2). This is perhaps reflective of the preponderance of productive employment opportunities in urban vis-à-vis rural areas, ensuring lower poverty ratio in urban areas.

Male and female: Similarly, a lower (higher) female (male) unemployment rate has been accompanied by higher (lower) female (male) poverty ratio [Planning Commission 2001]. In this context, Sundaram and Tendulkar (2004) have observed that, for poor households, the worker population ratios are higher for females than for males despite a higher child-woman ratio and dependency burden. Taken together, they suggest that the higher participation in the workforce among females in poor households is more an outcome of their poverty status and is accentuated by lower returns to female vis-à-vis male labour. Thus, the inter-relationship between the unemployment rate and the poverty ratio even across gender continues to be a chimera through the years.

Expenditure classes: This brings us to the question whether the overall increase in the unemployment rate in 1999-2000 is hiding

any possible decline in the unemployment rate amongst the poor at the micro/sectoral level. As per the NSSO’s household monthly per capita consumption classes for 1999-2000, the lower consumption groups have a much lower unemployment rates based on the UPSS measure, both in rural and urban areas. For example, the unemployment rate stood lower at 1.06 per cent for the monthly per capita consumption group of Rs (0-225) in rural areas as against the overall average of 1.43 per cent. As per the CDS measure, however, the pattern of unemployment across the various monthly per capita consumption classes is reversed. The divergent trends as per the UPSS and CDS measures, taken together, imply that the poor cannot wait for appropriate work and instead, take up any work even of sporadic nature. This renders them vulnerable to the uncertainties of labour demand in the market for casual labour. This is reflected in the higher unemployment rate as per the CDS measure, which reflects the intensity of employment.

Level of education: The poor are also supposed to be largely deprived of basic education facilities. The NSSO classification of the unemployed as per the UPSS measure by the level of education shows a steady unemployment rate of 0.2 per cent amongst the illiterates both in 1993-94 and 1999-2000. However, the unemployment rate moved up from 0.9 per cent to 1.2 per cent for the category of “literate up to primary” level while it declined from 3.4 per cent to 3.3 per cent for the “middle” literate category. In the absence of information on the distribution of the poor by level of education, it, thus, remains difficult to make a definitive pronouncement on the overall level of unemployment rate amongst the poor in 1999-00 vis-à-vis 1993-94.

Table 7: Factor Incomes in Unorganised Activities

(At current prices)
(in Rs Crore)

	1993-94			1999-2000		
	Compen- sation to Employees	Mixed Income	NDP	Compen- sation to Employees	Mixed Income	NDP
Agriculture	36768 (16.6)	185015 (83.4)	221783 (100)	68797 (16.2)	355588 (83.8)	424385 (100)
Mining and quarrying	643 (59.0)	446 (41.0)	1089 (100)	1584 (58.8)	1111 (41.2)	2695 (100)
Manufacturing	10726 (28.3)	27239 (71.7)	37965 (100)	22702 (27.6)	59456 (72.4)	82158 (100)
Electricity	0 (0.0)	632 (100.0)	632 (100)	0 (0.0)	1308 (100.0)	1308 (100)
Construction	15304 (77.2)	4516 (22.8)	19820 (100)	47317 (80.2)	11697 (19.8)	59014 (100)
Trade, hotels and restaurants	8494 (9.9)	77268 (90.1)	85762 (100)	19342 (10.0)	173999 (90.0)	193341 (100)
Transport, storage and communication	5910 (35.3)	10811 (64.7)	16721 (100)	15992 (30.2)	37027 (69.8)	53019 (100)
Financial, insurance, real estate and business services	625 (1.5)	40210 (98.5)	40835 (100)	2074 (2.6)	78152 (97.4)	80226 (100)
Community, social and personal services	3509 (21.2)	13027 (78.8)	16536 (100)	8575 (21.8)	30679 (78.2)	39254 (100)
All sectors	81979 (18.6)	359164 (81.4)	441143 (100)	186383 (19.9)	749017 (80.1)	935400 (100)

Note: Figures in bracket are percentage shares to respective totals.
Source: National Accounts Statistics, various issues, CSO.

Regional variations: The macro observation of declining poverty coupled with increasing unemployment has its reflection at the state level (chart 1). While the poverty ratio has declined for all the major 17 states in 1999-2000 over 1993-94, the unemployment rate as per the CDS measure has increased in as many as 14 states barring the states of Gujarat, Haryana and Karnataka (NSSO and 10th Five Year Plan documents, vol II). Besides, the higher incidence of unemployment in states like Kerala, Tamil Nadu and West Bengal, which have a better track record in strengthening the bargaining power of labour and social security was marked by sharp decline in their poverty ratios. In contrast, the poverty ratio declined for 13 out of 17 major states in 1993-94 over 1987-88 whereas the unemployment rate increased in six out of those 13 states. Thus, the relation of poverty and unemployment continues to be a paradox also across the states.

Cross-country evidence: In evaluating the role of employment in alleviating poverty, it would be of interest to explore the relationship between unemployment rate and poverty ratio in a cross-country framework. In terms of Table 3, India's unemployment rate is higher than those of China, Malaysia and US as also its poverty ratio. However, India's unemployment rate is lower than those in several countries such as Australia, Brazil, Indonesia, Korea, Pakistan, Philippines, Sri Lanka and UK while its poverty ratio is far higher than theirs. At the same time, India's unemployment rate was higher than Bangladesh's but its poverty ratio was lower. Thus, it appears that a lower unemployment rate is neither necessary nor sufficient for poverty reduction. Indeed, employment, if it fetches very low levels of income may not guarantee escaping poverty. Such low levels of income could be an outcome of low productivity in self-employment or low real wages in the relevant labour market.

Where do these stylised facts lead us? Table 4 to this effect summarises the trends between poverty and unemployment. As it appears there seems to be a trade-off between poverty and unemployment in relation to most of the attributes. While we do not have a clear-cut empirical causal story to explain this trade-off, what follows below is some conjectures that could be of relevance in this regard.

IV Dynamics of the Inter-Relationship: Possible Conjectures

Growth per se need not necessarily be poverty reducing unless the trickle down effects are sufficiently strong. Employment-intensive growth could, however, hold the key to poverty reduction. The growth of the 1990s was, however, one of a jobless variety. Not only did the organised sector undergo downsizing in pursuance of restructuring and competitive efficiency, but the unorganised sector too faced the same fate. There are two riddles in this context. First, consider the classical world of a Solowian production function. The improvement in growth can occur either from an increase in capital or labour or via some productivity increase. Given the Solowian paradigm, how can we reconcile the finding of a high output (or growth) but low employment? Does the jobless growth hint at some kind of a productivity revolution in India? Or, is it due to some sort of a Hicksian capital augmenting technical progress? Is there some problem of data in the sense of a formal-informal dichotomy? Are we really relating the growth of output with the rate of employment? All these questions are pertinent.

Second, and more fundamentally, how does employment go down in a growing economy when the proportion of people living below the poverty line goes down as well? Are the poor not getting jobs but benefiting from some redistributive programme? Or, is it that the true picture is not captured by the statistics? In this context, the present section looks into some possible explanations for the increasing unemployment rate coupled with the declining poverty ratio.

Growth and Employment

In a growth accounting framework, production is generally attributed to three sources: capital, labour and total factor productivity (TFP). The relationship between growth in GDP and employment is generally characterised by a summary statistic, viz, elasticity of employment with respect to GDP. Normally, an increase in output is associated with an increase in labour use or employment, implying a positive elasticity of employment. However, employment elasticities may be very low in sectors with large underemployment, which means there is considerable room for output expansion without any corresponding increase in employment. Employment elasticity is typically expected to be less than unity since productivity per person employed is likely to increase over time. With productivity growth being an important determinant of wage rate as also the quality of employment, high employment elasticities are not necessarily the best way of achieving employment objectives. Decline in employment elasticity can even be welcome for sectors where productivity per person is very low. Ideally, what is needed is a level of GDP

Table 8: Average Daily Wage Earnings for Casual Labourers in Rural India
(At 1993-94 Prices)

	Male			Female		
	1993-94 (Rs)	1999-2000 (Rs)	Growth (Per Cent Per Annium)	1993-94 (Rs)	1999-2000 (Rs)	Growth (Per Cent Per Annium)
Public works	24.65	30.89	3.83	18.52	24.87	5.04
Casual labour in agriculture	21.59	25.48	2.80	15.12	17.99	2.94
Casual labour in non-agriculture	30.15	37.49	3.70	17.46	23.49	5.07
Casual labour in all activities	23.18	28.65	3.59	15.33	18.51	3.19

Source: NSSO Surveys.

**Table 9: Rural Wage Employment Programmes:
Mandays of Employment**
(in Lakh)

	JRY/JGSY	EAS	Total (2+3)
1	2	3	4
1990-91	8745.59		8745.59
1991-92	8092.01		8092.01
1992-93	7821.01		7821.01
1993-94	10258.40	494.74	10753.14
1994-95	9517.07	2739.56	12256.63
1995-96	8958.25	3465.27	12423.52
1996-97	7453.88	4030.02	11483.90
1997-98	3958.00	4717.74	8675.74
1998-99	3752.10	4165.31	7917.41
1999-00	2683.00	2786.00	5469.00

Source: Economic Survey, Government of India, various issues; Planning Commission (2001).

growth that sufficiently high to allow for an increase in employment as also in productivity in order to ensure rising real wages and growth of income per person employed [Planning Commission 2001].

Employment elasticity of the economy (as per the UPSS measure), which was at 0.53 during the period 1977-78 to 1983 declined to 0.41 from 1983 to 1993-94 and further to 0.15 1993-94 to 1999-2000 [Planning Commission 2001, 2002]. As per the CDS measure of employment also, employment elasticity came down to 0.16 during the period 1993-94 to 1999-2000 from 0.52 in the period 1983 to 1993-94. Thus, while employment elasticity has been declining over the years, the decline has been particularly sharp in the 1990s, giving rise to the phenomenon of jobless growth.

At the sectoral level, employment elasticities declined for seven out of nine sectors. While the employment elasticity for construction was sustained as per the UPSS measure of employment, it declined as per the CDS measure. Similarly, the employment elasticity for “financing, insurance, real estate and business services” increased as per the CDS measure, it declined as per the UPSS measure. However, as per both the measures, the employment elasticity increased for “transport, storage and communication” over the period. Much of the decline in aggregate employment elasticity was due to agriculture and “community, social and personal services”, which together account for nearly 70 per cent of total employment. For the first time, the number of persons employed in agriculture turned out largely static over this period, perhaps reflecting the reduction in underemployment with the salutary impact on the poverty ratio.⁷

Employment: Organised and Unorganised

Given the unskilled profile of the poor, they are likely to be employed in blue-collar activities as against white-collar ones. Since the unorganised sector holds out more employment opportunities of the blue-collar variety, it may be of interest to compare the employment growth in the unorganised sector with that in the organised sector (Table 5). While employment growth slowed down at the aggregate level to 1.07 per cent in 1999-2000 from 2.67 per cent in 1993-94, it stands higher at 1.12 per cent for the unorganised sector as compared to 0.56 per cent

for the organised segment in 1999-2000. At the sectoral level, unorganised employment growth has been higher in the majority of activities, which together account for around 90 per cent of total employment. Only in three activities, viz, “mining and quarrying”, “electricity, gas and water supply” and “community, social and personal services”, has unorganised employment growth been lower than organised employment growth. While overall unorganised employment growth slowed down in 1999-2000 over 1993-94, the sectoral pattern of employment growth in the unorganised vis-à-vis organised sector, as emergent in 1999-2000, could be a factor contributing to the declining poverty ratio.

Productivity in Unorganised Sector

Higher employment growth in the unorganised vis-à-vis the organised sector does not, however, assure productive employment and hence, reduction in the poverty ratio. What is important from the point of view of poverty reduction is the per worker productivity in the unorganised sector, which is presented in Table 6 for the years 1993-94 and 1999-2000 along with the growth in per worker productivity. Clearly, NDP per worker at constant (1993-94) prices has improved by 4.6 per cent per annum to Rs 19,474 in 1999-2000 from Rs 15,284 in 1993-94. Agriculture, which remained the largest employer in the unorganised sector witnessed per worker productivity growth of 3.3 per cent per annum. The other major employers, viz, manufacturing, “trade, hotels and restaurants” and “community, social and personal services” posted per worker productivity growth of 4.7, 1.5 and 13.0 per cent per annum respectively. While the unorganised sectors with lower employment growth vis-à-vis the organised ones registered high growth in per worker productivity, all the unorganised sectors posted positive growth in productivity barring the sector, “financial, insurance, real estate and business services”. The latter underwent a negative growth in productivity in view of the growing importance of the organised segment and its emergence as the destination of white-collar jobs. The increasing capital intensity of the Indian economy – overall as well as sector-wise – evidenced during the period seems to have contributed to the per worker productivity growth.⁸ On the whole, the general growth in per worker productivity has arguably worked towards reducing the poverty ratio in 1999-2000.

Table 10: Expenditure for Major Employment Programmes
(Rs Crore)

	Wage Employment					Self-Employment				Grand Total (6+10)
	JRY/JGSY	EAS	MWS	IAY	Total	IRDP/SGSY	PMRY	KVIC	Total (7+8+9)	
1	2	3	4	5	6	7	8	9	10	11
1990-91	258.9		28	21.3	308.1	80.9	4.5	18.6	104	412.1
1991-92	266.3		49.5	26.3	342.1	77.3	5	19.3	101.6	443.8
1992-93	271		53.4	23.4	347.7	69.3	4.5	19.3	93.1	440.9
1993-94	387.9	18.4	64	48.1	518.3	95.7	13.7	20.8	130.2	648.5
1994-95	426.8	123.5	77.6	50	678	100.8	87.2	21.6	209.6	887.7
1995-96	446.7	172.1	55.9	136.8	811.5	107.7	137.8	33.7	279.2	1090.7
1996-97	215.7	213.8	49.9	138.4	617.8	112.7	11.5	30.9	155.1	772.9
1997-98	243.9	290.5	46.3	159.1	739.9	111	121.7	44.5	277.2	1017
1998-99	251.9	282	47.4	180.3	761.6	116.1	97.6	34.6	248.3	1009.9
1999-00	220.6	126.1	213.2	243.2	803.1	46.5	20.2	NA	66.7	869.8

Notes: JRY: Jawahar Rozgar Yojana; JGSY: Jawahar Gram Samridhhi Yojana;
EAS: Employment Assurance Scheme; MWS: Million Wells Scheme;
IAY: Indira Awas Yojana; IRDP: Integrated Rural Development Programme;
SGSY: Swarnjayanti Gram Swarozgar Yojana; PMRY: Prime Minister's Rozgar Yojana;
KVIC: Khadi & Village Industries Commission.

Source: Planning Commission (2001).

Share of Wages and Mixed Income

While improved per worker productivity is likely to be passed on to the workers in terms of higher wages, there is no certainty that such a transfer would necessarily take place, barring the case of own account production in self-employment activities. Further, in the event of such a transfer, it is likely that the gains in productivity would be shared between workers, owners and customers depending on their respective contributions to productivity growth, bargaining strengths and the intensity of competition at the market place. For the unorganised sectors, however, it is often difficult to separate factor incomes into income from labour, i.e., compensation to employees (CE) and other factors because of the existence of unincorporated enterprises and household industries, which either do not maintain accounts or are wholly managed by self-employed persons. Value added generated in such enterprises is known as mixed income (MI) in national accounts parlance. The MI of such enterprises along with CE is presented activity-wise for the unorganised sector in Table 7.

Clearly, at the aggregate level, the share of CE in NDP increased to 19.9 per cent in 1999-2000 from 18.6 per cent in 1993-94. Therefore, notwithstanding the declining share of MI, there are indications that the gains in per worker productivity were shared, at least in part, with the workers as reflected in the higher share for CE. This might have worked towards reducing the poverty ratio, which is largely a phenomenon in unorganised activities. However, at the sectoral level, the indications are not unequivocal. The share of CE has gone down in the largest employer-sector agriculture as also in manufacturing, "transport, storage and communication", and "mining and quarrying". On the other hand, the share of CE has increased for sectors such as "community, social and personal services", construction, and "trade, hotels and restaurants". Even "financial, insurance, real estate and business services", which registered negative per worker productivity growth has shown an increased share of CE. Given the differing sectoral shares in employment, the concomitant impact on CE and hence on the poverty ratio, thus, remains a matter of conjecture.

Daily Wage Earnings

There has been increasing casualisation of rural employment over the last two decades while the share of casual labour in urban employment has been fluctuating. As per the NSSO surveys, the share of casual labour in rural employment increased to 37.3 per cent in 1999-2000 from 35.6 per cent in 1993-94. The increasing casualisation is traditionally taken to be a sign of deteriorating employment quality in an environment of poor social security and hence, could arguably accentuate the poverty status.

The increasing casualisation of rural employment was, however, accompanied by accelerated real wage growth in 1999-2000 over 1993-94 (Table 8). Possibly, the growth in productivity and tightening of the labour market were translated into accelerated real wage growth, leading to a reduction in the poverty ratio. It is generally agreed that the availability of employment in public works programmes has an upward tendency on the general level of wages in the rural sector [Dutta 2003]. Besides, it is widely recognised that the declining price levels for agricultural/rural labourers facilitated the increase in real wages and hence

contributed to the declining poverty ratio over the years [chiefly Dharm Narain, Desai 1986].⁹

Employment Programmes

Given the fact that India continues to be home to the largest number of poor in the world, the country has instituted numerous poverty alleviation programmes by way of wage employment or self-employment. Some of them are meant for specific target groups such as the poor in urban and rural areas, women, scheduled castes and scheduled tribes while others are not targeted. Amongst the wage employment programmes for the rural areas, the Employment Assurance Scheme (EAS) and the Jawahar Rozgar Yojana (JRY), restructured as the Jawahar Gram Samridhi Yojana (JGSY) from April 1999 are the major ongoing programmes. As shown in Table 9, the total mandays of employment generated under these schemes, which increased to 10,753.14 lakh in 1993-94 from 8,745.59 lakh in 1990-91 have declined to 5,469.00 lakh in 1999-2000. Given the limited role of the schemes in mitigating unemployment, it is not surprising that rural unemployment rate increased in 1999-2000 over 1993-94.

In terms of expenditure, however, the amount spent under the major wage employment programmes has roughly increased one and a half times between 1993-94 and 1999-2000 from Rs 5,183.20 crore to Rs 8,030.70 crore (Table 10). Inclusive of the major self-employment programmes, the total expenditure went up from Rs 6,484.85 crore to Rs 8,697.63 crore over the period, possibly contributing to the declining poverty ratio.¹⁰

Role of Remittances

As mentioned in Section III, the phenomenon of increasing unemployment coupled with declining poverty has been observed in 14 of the 17 major states. Notably, the pace of growth also declined in nine of the 17 states during 1993-2000 over 1987-94. What then could be the source of poverty reduction in these states? Perhaps, interstate remittances, as also from abroad, had made possible this configuration at the state level: increasing unemployment, decelerated growth and yet, a declining poverty level. However, the issue continues to be a matter of speculation in the absence of the compilation of the state national product as against state domestic product, as also the state-wise destination of remittances from abroad.

V Summing Up

This study has attempted to throw some light on the observed inverse relation between poverty and unemployment as obtained in the 1990s. It has brought out the fact that such relationships as puzzling they are exist not only at the aggregate level but also at various cross-sections, such as urban-rural, male-female, expenditure class, education level, regional level and cross-country relation between poverty and unemployment. Interestingly, both the theoretical literature and empirical surveys are vertically divided on the issue, some posing a trade-off while others looking upon it in a positive sum frame. Given the complexity of employment/unemployment – open, under, disguised and full – coupled with measurement issues including those for poverty, it is no wonder that the relationship between poverty

and unemployment continues to be a chimera, particularly in developing countries like India.

In this backdrop, this study has primarily focused upon the growth process of 1990s in search of explanations for the emergent paradox between unemployment and poverty. The jobless growth of the 1990s, in general, and more so for agriculture, arguably contained the extent of underemployment and contributed to declining poverty. While employment growth came down sharply in the organised sector, it only slowed down in the unorganised sector, with higher employment growth in the unorganised than in the organised sector. The unorganised sector, being the largest employer for the unskilled poor, along with the continuing employment generation there, albeit at a decelerated tempo, possibly contributed to declining poverty. There is also evidence of increasing productivity per worker in the unorganised sector, which might have worked towards a reduction in the poverty ratio. The supportive indication in this regard has been the higher share of compensation to employees (CE) notwithstanding the declining share of mixed income (MI). However, the behaviour of compensation to employees has not been unequivocal at the sectoral level, leaving the issue of productivity-led reduction in poverty once again to speculation.

Nonetheless, the real wage rate increased sharply amongst casual labourers in rural India even though there has been increasing casualisation of employment both in rural and urban areas. Possibly the availability of public employment programmes

coupled with declining prices for agricultural/rural labourers contributed to the increasing trend in real wage rate. While the various employment programmes – wage and self-employment – generated less mandays in the late 1990s, expenditure on such programmes increased sharply, possibly leading to lower poverty. It is in this context, that the recent enactment of the National Rural Employment Act, 2005, which seeks to provide 100 days assured employment every year to every rural household in 200 districts, seems to be a move in the right direction. The study has also put forward a view that interstate remittances, as also those from abroad could have contributed to the emergent configuration of declining poverty, increasing unemployment and decelerated growth at the state level. [\[1\]](#)

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Notes

[The views expressed in the paper are those of the authors and not of the institution to which they belong.]

1 Indeed, during 1994-95 to 1996-97, the growth rate of GDP averaged as much as 7.5 per cent per annum in India. This was the only period in India's economic history when GDP growth exceeded 7.0 per cent consecutively for three years, barring the recent performance during 2003-06. The sharp acceleration in the GDP growth was largely the result of the phenomenal growth of 10.8 per cent

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- per annum in the industrial sector as an offshoot of the unshackling process.
- 2 Even prime minister Manmohan Singh has referred to the recent growth experience as jobless growth. To quote, "...The last few years have seen the phenomenon of *jobless growth* and we need to reverse this trend so that more growth translates into meaningful results for the working classes. I, therefore, propose to you that the time has come for us to add to the call for 'garibi hatao' a new slogan for our times: 'rozgar badhao'...." [Singh 2004].
 - 3 Deaton and Dreze (2002) calculated from different rounds of data collected by National Sample Survey by adjusting the official estimates of incidence of poverty and found that still the reduction of poverty was noticeable during the 1990s. Illustratively, the headcount ratio of rural poverty was found to have come down from 39.4 per cent in 1993-94 to 26.8 per cent in 1999-2000; urban poverty too was shown to have come down from 39.1 per cent to 24.1 per cent during the period.
 - 4 The relationship is strong even after controlling for initial levels of poverty.
 - 5 In general, Agénor (2003) has shown that if the economy's production function is not separable in (all) inputs, then the demand for labour will depend not only on the cost of labour but also on all the variables other than labour affecting output (that is, inputs such as physical capital, raw materials, and the productivity of factors).
 - 6 The reasons for this ambiguity are well illustrated in a simplified version of the model developed by Bean and Pissarides (1993), which considers a two-period economy with overlapping generations and a constant population. There are several other models in the recent growth literature that may lead to a negative correlation between unemployment and poverty, as a result of a nonlinear relation between unemployment and growth. Illustratively, in the Aghion-Howitt (1994) framework, an increase in the growth rate of productivity raises the present discounted value of the profits from creating a new job opening, on the one hand, leading firms to open more vacancies, and thus reducing unemployment ("capitalisation effect"); on the other, when productivity growth occurs through the "creative destruction" of low productivity jobs and their replacement by new high productivity ones elsewhere in the economy, then the inflow rate into unemployment will also be increased ("reallocation effect"). Note that the reallocation effect affects workers in the opposite direction to the capitalisation effect. Thus, trade-offs between unemployment and poverty reduction may emerge as a result of policy or structural shocks.
 - 7 The various alternative interpretations of the emerging episode are best described in Planning Commission (2002): "This decline is largely due to changes in the intra-sectoral composition within this sector when most of the labour-intensive sub-sectors grew comparatively slower, along with some significant mechanisation in other sub-sectors. This decline might also be reflecting some reduction in under-employment in the agriculture sector; when there is a shift of labour from agriculture to non-farm rural activities and migration to urban areas." (Chapter 2)
 - 8 Planning Commission (2002) has the following insightful observation on the issue: "The overall decline in the employment elasticity is to a large extent due not only to the changes in the broad nine sector composition of output, but also in the intra-sectoral composition and technology impacts of labour capital substitution. A separate study shows that the capital intensity in Indian economy in almost all the sectors, including even the small unorganised sectors and services, is increasing over time. The aggregate ICOR has increased from previous 3.4 (over 1991-92 to 1996-97) to nearly 4.4 since 1996-97. Over the Ninth Plan it touched over 5.0." (Chapter 2)
 - 9 A variation of Narain's hypothesis is provided by Bhattacharya et al (1991), who contended that it is the price of cereals relative to manufactures, which is a major determinant of the extent of rural poverty.
 - 10 While the exact impact of self-employment programmes is a matter of controversy, the sheer magnitude of the programmes obviously had some impact on the living standards of rural households. The various evaluation studies on IRDP report that between 37 and 49 per cent of eligible borrowers moved above the official poverty line of annual household income of Rs 3,500 [Dutta 2003]. Similarly, wage employment programmes acted as a cushion against the shooting up of poverty during drought years [Tendulkar et al 1993].
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