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Structural Change And Jobless Growth in Indian Economy

Economics

KEYWORDS : employment elasticity, liberalization, labor absorption.

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ABSTRACT

This paper presents alternative estimates of employment and employment elasticity at the aggregate and sectoral levels for the overall economy as well as for some major Indian states. The results from this study suggest that the aggregate employment elasticity at the all-India level during the periods viz., 1993-'94 to 1999-2000 and 1993-'94 to 2009-'10 is deteriorated, i.e. signifying a declining trend in employment elasticity reveals in post reform period. A similar decline was witnessed across states and across all broad sectors, particularly the primary sector. Although output growth had slightly accelerated to some extent during period under consideration (i.e. 1993-'94 to2009-'10), employment growth had virtually diminished, leading to low employment elasticity during the post reform years. Clearly there is a delinking of growth of output and employment during the post-reform period.

Introduction

The phenomenon of jobless growth is the major threat of the modern economic development of both the developing and developed world. A major section of world population has been deprived from the fruits of the huge economic growth during the recent period. To ensure the employment for the unemployed youth and the weaker section of the people India should design macroeconomic policies at national level. At the international level, policies in trade, finance and labor should be evaluated on the basis of their impact on employment and decent work.

There is a genuine concern of the propagators of liberalization in India is that new polices has a positive effect on the growth of Net State Domestic Product (NSDP) without a commensurate growth of employment. The fear comes from the fact that during the process of liberalization the private sector organization will be desperate to the efficiency in every respect to keep their existence in the competitive world. Also with the ongoing process of technical development the industries will be more dependent on automation and cut the jobs. The net result could be very slow expansion in employment opportunities in the organized sector, with a rise in unemployment rates and ongoing frustration among the youth.

The effect of employment potential can be seen through the employment elasticity of output. It is expected that the process of liberalization generate higher elasticity compared to post liberalization period through gain in productivity. However, this is not always true, particularly at the initial stage of reform basically due to slow adjustment process of the economy. One of the earliest influencing papers on the issue of a declining trend in workforce growth during the post-reform period was reported by Sundaram (2001a) and (2001b). His estimates suggested that based on Usual Principal and Subsidiary Status (UPSS) the workforce growth during the period 1993-'94 to 1999-'2000 was 0.81 as against the projected growth of population of over 1.75 per cent per annum. Alarmed by the trends in the 1990s, the Planning Commission constituted a Task Force to report on this matter. The Task Force endorsed the trend of decline in employment and a consequent rise in unemployment.

The aim of using the concept of output elasticity of employment in a particular sector of the economy helps in understanding the extent of labor absorption capacity of that sector in the economy (Basu and Das, 2015). The aim of this paper is to calculate the compound annual growth rates of output during 1993-'94 to1999-'2000 and 1993-2009-'10 and also uses the National Sample Survey Organization (NSSO) employment –unemployment figures for 15 states in India to explore the state-wise sectoral comparison and verify the output elasticities of employment across the 15 states under consideration.Thus the objective of this paper is as follows------how the output growth and employment growth change over time under consideration with respect to the employment elasticities of different sectors of 15 states are considered?

Materials and Methods

The NSDP data are calculated from different issues of National Accounts Statistics, published by Central Statistical Organization of Government of India. For generating employment figures in different sectors of the economy for these 15 states NSSO's estimated figures on Labor force participation ratio as number of persons in 1000 populations are used. NSSO has also published data for employed persons as per 1000 distribution of usually working persons in the Principal Status by broad industry division for each state. Total labor force (i.e., employed and unemployed) are estimated using the population figures and the corresponding 'Labor force population ratios' of NSSO. Then the per 1000 distribution of working persons in total labor force for different sectors are multiplied with the estimated total labor force to arrive at the figures of the employed persons in those sectors of the economy in 15 states of India. The employment elasticity with respect to output is measured as the ratio between the growth of employment and growth of output. This measure gives an average employment elasticity of output and it subsumes all other factors affecting employment, such as wage rate, technology and labor productivity. Further the average employment elasticity measured in this manner can sometimes create confusion at policy level; if the employment elasticity of output increases then it may on the one hand, indicate more employment generation and on the other hand, it may indicate decline average labor productivity (Visaria, 1996). A rigorous analysis of employment elasticity should therefore be done on the basis of production function, relating output to labor, capital, technology etc. Pending that, an average measure of employment elasticity will only give a broad indication of the absorption of labor across states and sectors.

Results and Discussion

Growth rates of NSDP

If we compare the NSDP growth for the whole period of these 15 states with that of all –India figure we find that some states viz., Gujarat, Haryana, Karnataka, Rajasthan and West Bengal are above the all- India average. When we compare a similar comparison for the initial period it is observed that some other states performed better compared to the all- India average. They are namely Maharashtra, Madhya Pradesh and Tamil Nadu.

Table (1) reveals that the growth rates of NSDP for most of the states are lower in the latter phase of liberalization compared to the earlier phase. It is expected since at the initial phase of liberalization there was a jump of output of different sectors from a

very low level while in the latter phase the economy has already gained its momentum and because steady with a moderate pace of growth. In many states the agricultural growth was negative during this period. A wide variation in growth rates among the states is also found in the manufacturing sector during the total period. Some states which perform better in the early phase of liberalization are found lagging in the latter period for example, Gujarat, Himachal Pradesh, Kerala and Maharashtra etc. The growth rate of tertiary sector during the period is highest among all other sectors and the variations of growth rates among the states are not as high as in other states.

Employment Growth

During the course of the study the variation in employment growth is about 1% to 4% per annum. For most of the 15 states, the employment growth is higher in the second sub-period compared to the initial period. The employment growth rates in agricultural sector in some states are below 2% and in some other states it is negative. Table (2) reveals this fact.

(C) Employment elasticity

Table (3) estimates the employment elasticity in different sectors across 15 states under consideration. It is found that elasticity of employment for the total economy in the latter period is about 0.46 which is much higher than that of in the first phase of liberalization which is about 0.17. Employment elasticity is much higher in manufacturing industry. The employment elasticity in the tertiary sector total is not very high and it gains value only in the latter phase of liberalization. For the economy as a whole and during the total time period concerned, Haryana and Uttar Pradesh have done better compared to other states in employment elasticity. If we consider the recent period, then it is observed that the states like Madhya Pradesh, Punjab and Uttar Pradesh have higher elasticity compared to other states under consideration. Some states have higher elasticities in specific sectors compared to other states. The implication is that some states have some advantage in creation of job opportunity in specific areas.

This paper presents the growth rate of employment based on alternative measure of employment used by the NSSO in one hand and output growth rate, based on National Accounts Statistics of CSO data. Our objective has been to compare the employment behavior in the initial period of liberalization and latter period of liberalization. Our results indicate that while there has been a mild acceleration in output growth rate during the latter phase of liberalization, there has been a sharp decline in the employment growth rate during the same period. This is evident not only at the all-India level but also across 15 states and sectors. There are, however, some variations among the states. There is therefore, a clear evidence of a deceleration in employment growth in the 2000s.

Table 1: Growth Rates of NSDP (Compound annual growth rate)

States	1993-'94to 1999-2000 (A)	1999-2000 to 2004-'05 (A)	1993-'94 to 2009'-'10 (A)	1993-'94to 1999-2000 (M)	1999-2000 to 2004-'05 (M)	1993-'94to 2009-'10 (M)	1993-'94 to 1999-2000(T)	1999-2000 to 2004-'05 (T)	1993-'94 to 2009-'10 (T)	1993-'94 to 1999-2000 (SDP)	1999-'2000 to 2004-'05 (SDP)	1993-'94 to 2009-'10 (SDP)
Andhra Pradesh	1.54	3.73	2.59	5.79	5.69	5.89	7.29	8.17	7.94	5.42	6.62	5.96
Bihar	0.64	4.62	2.43	2.00	4.84	3.39	6.44	5.66	6.09	3.90	5.06	4.49
Gujarat	2.38	8.17	5.18	7.99	6.06	7.36	9.41	7.11	8.94	7.81	6.86	7.94
Haryana	1.86	2.71	2.11	6.41	7.09	6.77	9.62	10.94	10.17	5.69	7.11	6.94
Himachal Pradesh	0.45	7.39	3.03	19.34	8.44	14.27	10.02	4.32	7.48	7.53	5.77	6.80
Karnataka	4.12	-3.63	0.54	4.28	9.11	6.24	10.46	10.42	10.98	7.20	6.17	6.81
Kerala	1.93	-4.46	-1.09	5.10	-1.32	2.28	7.96	9.75	8.76	5.45	6.09	5.79
Maharashtra	2.84	-2.66	0.59	5.14	1.07	3.31	7.84	8.02	7.91	5.94	4.86	5.98
Madhya Pradesh	2.53	-0.58	1.17	8.27	-2.66	3.17	6.86	4.62	5.98	6.10	2.24	4.98
Orissa	1.35	2.79	0.62	9.60	4.08	6.84	7.39	7.78	7.57	4.27	5.88	4.38
Punjab	2.21	2.08	2.17	5.18	1.79	3.59	6.98	5.82	6.94	4.54	4.09	6.83
Rajasthan	4.99	3.37	4.25	12.72	0.64	7.18	8.94	7.14	8.96	8.11	5.17	5.94
Tamil Nadu	1.25	-2.55	-0.50	3.46	0.67	2.19	9.57	4.94	7.89	6.12	3.96	
Uttar Pradesh	2.92	1.26	2.11	3.14	3.99	3.77	5.17	5.54	5.50	4.28	3.78	4.89
West Bengal	4.18	2.39	3.34	7.79	3.77	5.72	9.85	10.84	10.94	7.31	7.18	7.24

Compound annual growth rate of GDP------ India

Time	A	M&Q	M	E,G &W ss.	C	T,H,R	TR., ST. & COMUN.	B&R	R.S.	Sub total	NSDP
1993-'94 to '99-2000	2.84	5.83	6.06	8.53	6.21	9.21	10.48	11.29	5.37	9.02	6.51
1999-2000 to 2007-'08	1.89	6.34	6.33	3.27	6.28	7.51	14.84	5.13	6.81	7.42	5.74
1993-'94 to '09-'10	3.12	6.04	6.31	6.79	6.26	8.94	12.27	8.98	5.94	8.84	6.27

Note: 'A'---Agriculture; M---Manufacturing; 'T'---Tertiary sector; SDP---State domestic product; M&Q----Mining & Quarrying; E,G and W ss.---Electricity, gas and water supply; C---Construction; T,H,R---Trade, hotel, and restaurants; TR., ST., COMMUN.---Transport, storage and communication; B&I---Banking & insurance; R.S.----Real estate.

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Table 2: Compound annual growth rate of employment

States	1993-'94 to 1999-2000 (A)	1999-2000 to 2004-'05 (A)	1993-'94 to 2009-'10 (A)	1993-'94 to 1999-2000 (M)	1999-2000 to 2004-'05 (M)	1993-'94 to 2009-'10 (M)	1993-'94 to 1999-2000 (T)	1999-2000 to 2004-'05 (T)	1993-'94 to 2009-'10 (T)	1993-'94 to 1999-2000 (SDP)	1999-2000 to 2004-'05 (SDP)	1993-'94 to 2009-'10 (SDP)
Andhra Pradesh	-0.12	-0.48	-0.36	-1.59	7.50	3.05	1.15	3.91	2.42	0.31	1.71	0.96
Bihar	1.03	1.08	1.04	9.43	1.77	5.89	1.15	2.05	1.59	1.91	2.26	2.08
Gujarat	2.36	1.29	1.89	-1.82	9.69	3.39	0.69	1.54	1.11	2.21	2.64	2.44
Haryana	-0.15	4.79	2.09	3.96	9.78	6.96	-3.69	6.70	0.98	1.08	5.48	3.96
Himachal Pradesh	-1.62	1.17	-0.39	4.21	8.85	6.66	3.43	3.46	3.44	-0.07	2.73	1.24
Karnataka	0.07	2.86	1.37	0.33	2.97	1.62	-0.15	4.79	2.05	0.80	3.17	1.96
Kerala	-2.70	-0.10	-1.53	1.24	1.34	1.31	1.75	5.37	3.48	1.08	1.48	1.29
Maharashtra	0.17	2.50	1.27	1.06	4.99	2.96	0.74	4.05	2.27	1.07	3.33	2.09
Madhya Pradesh	0.26	1.51	0.83	4.29	5.14	4.68	0.54	4.60	2.48	1.11	2.76	1.96
Orissa	-0.02	0.13	0.08	4.68	6.46	5.49	-1.26	6.81	2.37	0.67	2.60	1.59
Punjab	1.54	0.79	1.19	3.69	6.48	4.97	0.90	3.23	1.98	2.57	2.62	2.54
Rajasthan	0.00	1.56	0.77	3.52	7.28	5.37	-0.20	4.71	1.82	0.91	2.91	1.77
Tamil Nadu	-1.96	0.44	-0.89	1.15	3.20	2.08	0.25	3.25	1.70	0.19	1.79	0.96
Uttar Pradesh	-0.37	3.08	1.18	4.06	5.69	4.89	0.40	2.59	1.39	1.00	3.89	2.66
West Bengal	0.23	2.79	1.39	-0.05	1.39	0.57	-0.53	4.82	1.96	0.59	3.17	1.79

Compound annual growth rate of Employment------ India

Time	A	M&Q	M	E,G &W ss.	C	T,H,R	TR., ST.&COMUN.	B&R	R.S.	Sub total	NSDP
1993-'94 to '99-2000	0.03	-3.09	1.68	-1.74	6.24	0.13	6.48	4.44	-1.41	0.69	1.02
1999-2000 to'07-'08	1.76	2.98	4.88	3.13	8.18	3.61	4.67	9.97	1.91	3.62	2.89
1993-'94to '09-'10	0.81	-0.38	3.07	0.44	7.10	4.98	6.10	6.92	0.08	1.98	1.86

Note: All observations used in this table are same as Table (1)

Table (3): employment elasticity

State	A 1993-'94 to '99-2000	A 1999-2000 to 2009-'10	A 1993-'94 to 2009-'10	M 1993-'94 to 1999-'10	M 1999-2000 to 2009-'10	M 1993-'94 to 2009-'10	T 1993-'94 to 1999-2000	T 1999-2000 to 2009-'10	T 1993-'94 to 2009-'10	1993-'94 to 1999-2000	1999-2000 to 2009-'10	1993-'94 to 2009-'10
Andhra Pradesh	-0.08	-0.08	-0.24	-0.27	0.43	1.48	0.17	0.29	0.59	0.06	0.14	0.34
Bihar	1.69	0.23	0.51	4.73	1.20	0.59	0.18	0.28	0.39	0.48	0.40	0.59
Gujarat	0.99	0.23	0.25	-0.23	0.49	1.39	0.07	0.15	0.19	0.30	0.35	0.39
Haryana	-0.08	0.76	2.19	0.61	0.93	1.48	-0.38	0.08	0.67	0.19	0.44	0.89
Himachal Pradesh	-3.68	-0.05	0.39	0.23	0.74	0.68	0.34	0.80	0.49	-0.01	0.21	0.49
Karnataka	0.02	-0.37	5.59	0.08	0.17	0.46	-0.01	0.20	0.46	0.11	0.30	0.48
Kerala	-1.48	0.34	0.10	0.23	-0.97	0.59	0.23	0.25	0.66	0.20	0.21	0.26
Maharashtra	0.06	-0.48	8.02	0.21	2.64	1.53	0.09	0.28	0.58	0.18	0.43	0.66
Madhya Pradesh	0.10	-1.54	1.39	0.52	-1.76	1.65	0.08	0.53	0.89	0.19	0.91	0.66
Orissa	0.01	0.02	0.27	0.51	1.36	0.94	-0.17	0.30	0.90	0.17	0.26	0.58

Punjab	0.70	0.59	0.39	0.74	2.85	1.85	0.17	0.34	0.50	0.57	0.64	0.62
Rajasthan	0.00	0.21	0.37	0.27	8.12	1.01	-0.02	0.26	0.53	0.10	0.34	0.43
Tamil Nadu	-1.53	0.34	0.90	0.33	3.09	1.48	0.03	0.35	0.49	0.03	0.24	0.39
Uttar Pradesh	-0.13	0.94	1.43	1.29	1.32	1.69	0.08	0.25	0.49	0.23	0.61	0.96
West Bengal	0.05	0.59	0.89	-0.01	0.17	0.29	-0.05	0.18	0.48	0.08	0.25	0.44

Employment elasticity – India

TIME	A	M&Q	M	E,G AND WSS	C	T,H,R	TR. , ST., COMMUN.	B&R	R.S.	SUB TOTAL	TOTAL
1993-'94 to '99-2000	0.01	-0.63	0.20	-0.20	1.01	0.87	0.62	0.39	-0.20	0.08	0.17
1999-2000 to 2009-'10	0.71	0.49	0.70	0.48	1.31	0.42	0.38	1.13	0.32	0.49	0.46
1993-'94 to 2009-'10	0.43	-0.08	0.48	0.14	1.13	0.08	0.34	1.36	0.01	0.41	0.30

Note : Same as Table(1)
Note: All estimates of tables 1, 2 and 3 were done by author's himself.

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References

1. Basu, D. and Das, D. (2015). Employment elasticity in India and U.K., 1971-2011: A sectoral decomposition analysis, working paper, 2015-07, University of Massachusetts, Amherst.
2. Chadha, G. K. and Sahu P.P. (2002). Post-reform setbacks in rural employment. Economic and Political Weekly May 25.
3. Kundu, A. (1997). Trends and structure of employment in the 1990s, implications for urban growth. Economic and Political Weekly 32 (4): 1399-1405.
4. Sundaram, K. (2001a). Employment and poverty in the 1990s. Economic and Political Weekly August 11-17.
5. Sundaram, K. (2001b). Employment-unemployment situation in the 1990s, some results from NSS 55th Round. Economic and Political Weekly March 17-23.
6. Visaria, P. (1996). Structure of the Indian Workforce, 1961-1994, Indian Journal of Labor Economics, New Delhi 39(4): 725-739.