Regional Inequality in India: A Fresh Look[†]

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Abstract

There are concerns that regional inequality in India has increased after the economic reforms of 1991. This concern is supported by various statistical analyses. In this paper, we argue that the conclusions are sensitive to what measures of attainment are used. In particular, human development indices do not show the same increase in regional inequality. Furthermore, looking at consumption and credit indicators for regions disaggregated below the state level also suggests that inequality trends may not be as bad as suggested by State Domestic Product data, although the greater strength of the economies of the western and southern states emerges in our results. Finally, we briefly discuss policy implications within the context of India's evolving federal polity.

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1.Introduction

There are concerns that regional inequality in India has increased after the economic reforms of 1991. This concern is supported by various statistical analyses. In this paper, we show that the conclusions are sensitive to what measures of attainment are used. In particular, human development indices do not show the same increase in regional inequality. Furthermore, looking at consumption and credit indicators for regions disaggregated below the state level also suggests that inequality trends may not be as bad as suggested by State Domestic Product data. Finally, we briefly discuss policy implications within the context of India's evolving federal polity.

In section 2, we briefly survey a sampling of previous work on growing inequality across the Indian states. We also summarize the trends in personal income distribution. In section 3, we consider trends in other indicators of economic achievement, but still at the state level. We find that the results are quite sensitive to what we are measuring. In section 4, we disaggregate below the state level, using regional data that allows a more fine-grained look at what is happening in different geographic regions of India. Section 5 concludes with some discussion about possible policy implications, especially in the context of India's federal system..

2. Inequality: The State of the Debate

One can begin by noting that measures of personal income inequality tell us that very little has changed. This is the message of Table 1, which reports nationwide Gini coefficients and top and bottom quintile income shares. Of course, it may be that the figures are missing the rise in incomes of the top one or two percent of the country's population, which may have benefited the most from liberalization[1], because of under-coverage and under-reporting. Whether this speculation is true remains a matter for further investigation.

Table 1: Personal Income Inequality Trends in India

Year	Gini Coefficient	Bottom Quintile Income Share	Top Quintile Income Share
1960	0.327	8.4%	41.4%
1980	0.322	8.5%	40.9%
2000	0.327	8.7%	41.8%

Source: Bhalla (2002), Table 3.1

[1] For example, the Chief Minister of Punjab (a high income state) made the following remarks in his speech during the September 2001 meeting of the National Development Council: "In my view, most of the gains of development have been cornered by 10% of the population in the organized sector, while 90% of the population in the unorganized sector has only marginally benefited." (Full text available at http://planningcommission.nic.in/pl49ndcf.htm) The substantial decline in poverty headcounts, however, is not consistent with this view.

A statewise breakdown of Gini coefficients, including a division between rural and urban households, gives a similar picture of no strong increase in household inequality. The 14 major states in Table 2 are listed in order of per capita SDP in 1981-82, from poorest to richest – we adopt this convention throughout the paper. Note that half the states show some (mostly small) increase in urban inequality (figures in italics) over the period 1993-94 to 1999-2000, but none of the states display any increase in consumption inequality in rural households over the same period. These conclusions are somewhat consistent with those of Deaton and Drèze (2002), although – based on adjustments to the 1999-2000 data – they argue that "there have been marked increases in within-state urban inequality" (p. 3740).[2]

Table 2: Gini Ratios for Per Capita Consumption Expenditure

	1993-1994	1993-1994	1999-2000	1999-2000
	Rural	**Urban**	**Rural**	**Urban**
Bihar	0.221	0.309	0.208	*0.318*
Rajasthan	0.260	0.290	0.209	0.281
Uttar Pradesh	0.278	0.324	0.245	*0.327*
Orissa	0.243	0.304	0.242	0.292
Madhya Pradesh	0.278	0.326	0.241	0.312
Andhra Pradesh	0.257	0.321	0.238	0.310
Tamil Nadu	0.308	0.344	0.279	*0.398*
Kerala	0.290	0.340	0.270	0.320
Karnataka	0.269	0.315	0.241	*0.321*
West Bengal	0.250	0.335	0.224	0.328
Gujarat	0.236	0.285	0.233	*0.288*
Haryana	0.300	0.280	0.240	*0.285*
Maharashtra	0.301	0.350	0.258	0.345
Punjab	0.264	0.276	0.238	*0.290*

Source: Planning Commission, National Human Development Report, 2001, Table 2.3.

Table 2 tells us only about inequality within rural and urban households for each state. It contains no information about inequality across states. This is where most studies have focused. In doing so, those studies essentially treat all households within a state as equal, since statewide averages are used. All the recent studies in this vein have raised concerns of growing inequality across India's states. Table 3 summarizes a small subset of the numerous studies that have been undertaken.

[2] Deaton and Drèze (2002) also use disaggregated data to provide evidence of a growth in rural-urban inequality within states. The aggregate data in Table 2 do not, of course, permit such inferences to be made.

We further discuss three of these studies here. Rao, Shand and Kalirajan (1999), examining the period 1965-95, found that SDPs for the 14 major states (excluding Goa and all the special category states) were diverging (using standard growth regressions for conditional convergence), even when one controlled for differences in initial conditions. They emphasized the role of private investment flows in explaining this pattern of regional inequality. Ahluwalia (2002) similarly found private investment flows to be a significant factor in explaining cross-sectional variation in states' growth rates. While he did not examine divergence through regression analysis, his calculations of population-weighted Gini coefficients for the 14 major states showed a substantial increase, from 0.175 in 1991-92 to 0.233 in 1998-99.

Table 3: Convergence Studies for India's States

Study	Period	No. of States	Main Results
Cashin and Sahay (1996)	1961-91	20	Slow absolute and conditional convergence. Weak impact of internal migration.
Nagaraj, Varoudakis and Véganzonès (1998)	1970-94	17	Absolute divergence, conditional convergence. Share of agriculture, infrastructure, political and institutional factors (state fixed effects) matter.
Rao, Shand and Kalirajan (RSK, 1999)	1965-95	14	Absolute and conditional divergence, faster in early 90s. Private investment matters.
Aiyar (2001)	1971-96	19	Conditional convergence; infrastructure, private investment and nonmeasured institutional factors matter.
Ahluwalia (2002)	1981-99	14	Gini coefficient of per capita SDP (weighted by population) increased from late 1980s, through 1990s. Convergence not allowed for, but private investment matters for growth.
Singh and Srinivasan (2002)	1991-99	14	No clear evidence of conditional convergence or divergence. Financial/investment variables (credit, credit-deposit ratios, FDI) matter for growth.
Sachs, Bajpai and Ramiah (2002)	1980-98	14	Absolute divergence for all states (and for rich group but not poor group) for 1990-98; qualitative discussion of possible conditioning factors (social and geographic variables).

Singh and Srinivasan (2002), looking at the period 1990-91 to 1998-99, however, found that the evidence does not permit one to reach very definite conclusions on convergence or divergence across the (14 major) states. As in other studies, they found that private investment (measured by per capita bank credit) matters for growth. They also found that

credit-deposit ratios and FDI approvals per capita have positive impacts on growth.[3] Finally, they observe that credit-deposit ratios (a proxy for the internal movement of capital) have both become more varied across states, and more closely correlated with SDP per capita. These findings are suggestive of capital (foreign and domestic) increasingly moving to where it can be more effectively used, namely in higher income states.[4]

Should one worry about increasing inequality of SDPs? Increasing inequality across regions is certainly a concern if it sharpens political tensions, especially in a diverse federal polity such as India's. On the other hand, the evidence for increasing inequality of per capita SDP across states may have limited consequences. First, there is no clear statistical evidence of long run divergence. Second, the statistical analyses all use SDP as the outcome measure. As all the studies note, this has its problems. It ignores remittances, and these may have significant impacts on incomes. In some cases, such as remittances from Punjabi emigrants abroad, these flows may go to richer states. On the other hand, there are substantial remittances internally, such as from Bihari migrant agricultural laborers in Punjab back to their home state. In the latter case, accounting for remittances would reduce inequalities. In the next section, we examine some alternative outcome measures, still at the state level, to examine these possibilities.

3. Alternative Outcome Measures

One possibility for measuring the well being of individuals across different states is to look at consumption measures. These are available from the Planning Commission's National Human Development Report (NHDR, Planning Commission of India, 2002, Table 2.2), and we use this data to perform some regressions to test for absolute convergence in per capita consumption expenditures. These results are presented in Table 4. The dependent variable is the difference in the natural logarithm of per capita consumption expenditure between 1999-2000 and the base year (hence the growth rate over the entire period) and the independent variable is per capita consumption expenditure in the base year. The two base years are 1983 and 1993-94. Interestingly, the regressions suggest absolute divergence in both periods, but the evidence is weak for the later period (not quite significant at the 10% level, using a two-sided test – which does not presume either convergence or divergence), which covers the bulk of the post-reform era.

The conclusion from the statistical analysis in Table 4 is somewhat different from that of Deaton and Drèze (2002). Referring to the period 1993-94 to 1999-2000, they argue that there is "strong evidence of 'divergence' in per capita consumption across states" (pp. 3739-40). The differences in our analysis are as follows. First, we exclude Delhi and three special category states included in their study. Second, they use a different measure

[3] In contrast, consistent with the finding of Ahluwalia (2002), the broad infrastructure index constructed by the Centre for Monitoring the Indian Economy (CMIE), which includes 13 variables measuring aspects of physical, social and financial infrastructure, has no significant impact on growth.

[4] Policy also matters, as the poor record of Punjab, a rich state, in attracting FDI bears out.

of average per capita expenditure, the geometric mean. Neither of these is likely to lead to major differences in results. Most importantly, they do not perform a statistical test to examine the significance of the positive relationship between base year values and growth rates[5]. Our analysis is also performed with 1983 as the base year, suggesting that the 1990s may have been better than the 1980s in terms of trends in consumption inequality, in the sense that the rate of increase may have diminished. An important caveat is that Deaton and Drèze use adjusted data for 1999-2000, whereas we use the official data.

Table 4: Convergence Regressions – Consumption Expenditure

Variable	Base Year 1983	Base Year 1993-94
Constant	-0.063	-0.261
	(0.623)	(0.523)
Base year ln (per capita cons^{n}. exp.)	0.330**	0.147
	(0.128)	(0.090)

Notes: Dependent variable is growth of per capita consumption expenditure from base year to 1999-2000
Standard errors in parentheses; *,** ,*** correspond to 10%,5%,1% significant level, respectively.

We next look at broader outcome measures, which reflect how the states are doing relatively, in terms of standards of living.[6] In particular, the Planning Commission now publishes a National Human Development Report (NHDR, Planning Commission of India, 2002), which looks at eight different dimensions of development performance: per capita expenditure, headcount poverty rate, literacy rate, a formal education enrollment index, infant mortality rate, life expectancy, access to safe water and access to housing constructed with relatively permanent materials. Calculations by Singh and Srinivasan (2002) suggest that the Human Development Index (HDI) constructed in the NHDR does not show any increase in across-state variation (again, this is for the 14 major states), as measured by the unweighted standard deviation. Since the average HDI has risen in the 1990s, the coefficient of variation has fallen (Table 5). These numbers are therefore quite consistent with the conclusion that inter-state disparities in well-being have not worsened in the 1990s.

[5] See Deaton and Drèze (2002), Figure 2, p. 3735.
[6] We are grateful to Devesh Kapur for initially pointing us in the direction of the following discussion. The work of Deaton and Drèze (2002) and Drèze and Sen (2002) also argues forcefully for this more general perspective on measuring development.

Table 5: State Level Human Development Indices

State	1981	1981	1991	1991	2001	2001
	Value	Rank	Value	Rank	Value	Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10
Bihar	0.237	14	0.308	14	0.367	14
Gujarat	0.360	4	0.431	6	0.479	6
Haryana	0.360	5	0.443	5	0.509	5
Karnataka	0.346	6	0.412	7	0.478	7
Kerala	0.500	1	0.591	1	0.638	1
Madhya Pradesh	0.245	13	0.328	12	0.394	12
Maharashtra	0.363	3	0.452	4	0.523	4
Orissa	0.267	10	0.345	11	0.404	11
Punjab	0.411	2	0.475	2	0.537	2
Rajasthan	0.256	11	0.347	10	0.424	9
Tamil Nadu	0.343	7	0.466	3	0.531	3
Uttar Pradesh	0.255	12	0.314	13	0.388	13
West Bengal	0.305	8	0.404	8	0.472	8
All India	0.302		0.381		0.472	
Unweighted average	0.325		0.407		0.469	
Standard deviation	0.071		0.075		0.072	
Coefficient of variation	0.219		0.185		0.155	

Source: Planning Commission (2002) and Singh and Srinivasan (2002).

We can extend the analysis of Singh and Srinivasan (2002) by estimating convergence-style regressions. Since the HDI is already compressed by being constrained to lie between zero and one, we do not use logarithms, instead regressing the change in the HDI on the base year. These results are presented in Table 6. In addition to testing for absolute convergence, we also include credit per capita in a separate regression, to test for conditional convergence – this was one of the investment variables that Singh and Srinivasan found to be significant in explaining the growth of per capita SDP in the 1990s. However, such variables turn out to be insignificant in affecting improvements in the HDI. This result is not surprising, but it could have gone the other way, and would have been a greater cause for concern in that case. To summarize, when we look at a broad measure of well-being, there is no evidence of the absolute divergence that shows up in output and consumption measures.[7]

[7] One important caveat we should add is that the HDI includes mostly stock measures. We would expect these to be changing more slowly, and therefore our empirical investigation may be missing longer run problems of divergence. Furthermore, as discussed in detail in Deaton and Drèze (2002), measure of

Table 6: Convergence Regressions – HDI

Variable	Absolute Convergence	Conditional Convergence
Constant	0.081***	0.087***
	(0.016)	(0.017)
HDI 1991	-0.045	-0.078
	(0.038)	(0.048)
Credit per capita, 1990-91		0.053
		(0.048)

Notes: Dependent variable is change in HDI from 1991 to 2001.
Standard errors in parentheses; *,**,*** correspond to 10%,5%,1% significant level, respectively.

4. Inequality Below the State Level

A final aspect of regional inequality involves going to the sub state level.[8] In this case, one has no output data, so the problem of SDP as a measure of economic outcomes is moot. Recently, Bhandari and Khare (BK, 2002) have used data available at the level of regions as defined by the National Sample Survey Organization (NSSO). The NSSO divides the Indian states into 78 homogenous agro-economic regions that are groups of contiguous districts, demarcated on the basis of agro-climatic homogeneity. Each region is contained within a state or union territory. Together these regions cover all of India. For each region, BK construct an economic performance index based on five variables: petrol sales, diesel sales, bank credit, bank deposits and cereal production. They compare the years 1991-92 and 1998-99, and report how each region did over this period, in terms of share of the overall economy.

The BK calculations reveal several interesting patterns. First, a clear West-East divide emerges, with the West increasing its economic share. Second, there is no obvious North-South or coastal-inland divide. Third, most of the areas that do the best are centered on urban areas, which appear to be acting as growth poles. Fourth, many of the areas that lag are rain-fed agricultural regions, consistent with the general consensus that agriculture has been bypassed by the reform program to date.[9] Fifth, Punjab, Haryana and Kerala do relatively well in this analysis (better than when per capita SDP is used as a measure of performance), consistent with our earlier discussion of international remittances. Finally,

development or well-being that are components of the HDI may be changing in very different ways, while other measures (e.g., gender ratios) may not be included at all in such indices.

[8] Deaton and Drèze (2002) also emphasize the importance of analyzing well-being at a more localized level than that of the state, and provide some examples. Here we go further and perform a statistical analysis.

[9] To the extent that rural India and poorer regions are lagging in relative shares of the economy, this picture is consistent with increasing regional inequality of economic outcomes. However, this is not a direct inference from the BK calculations, since they are given in terms of changing relative shares, not absolute performance.

while some states are doing consistently well, in terms of all regions within the state increasing their relative share (e.g., Karnataka, Kerala, Punjab and Haryana), there are other states with marked internal disparities in regional performance (e.g., Andhra Pradesh, Madhya Pradesh and Maharashtra). Thus, going down to the regional level provides a considerably more nuanced picture of the regional patterns of economic change in the post-reform period.

Here we extend the BK analysis by again looking at convergence-style regressions, but now for the regional data. Rather than construct an index, we examine the five variables individually. This results in some observations with missing data being eliminated from the regressions, but we are still left with 59 observations, which gives a considerably more disaggregated and complete picture than does state-level analysis. The results are reported in Table 7 (absolute convergence) and Table 8 (conditional convergence).

In Table 7, we see that only diesel consumption and credit show evidence of absolute divergence. This is consistent with a story in which productive economic activity is becoming more unequal across regions, but final consumption is not subject to such effects to the same degree. This is broadly consistent with the picture at the state level.

Table 7: Absolute Convergence Regressions – Regional Data

Dependent Variable	ΔDiesel Consumption	ΔPetrol Consumption	ΔDeposits	ΔCredit	ΔCereal Production
Independent Variable					
Constant	-4.44***	-4.30***	0.78***	1.02***	0.13
	(0.06)	(0.06)	(0.15)	(0.18)	(0.16)
Diesel Consn. 1991	0.16***				
	(0.06)				
Petrol Consn. 1991		0.03			
		(0.05)			
Deposits 1991			0.02		
			(0.04)		
Credit 1991				0.12***	
				(0.04)	
Cereal Prodn. 1991					0.02
					(0.08)

Notes: All variables are natural logarithms and in per capita terms.
Dependent variable is change in the log of the per capita variable between later and base years.
Standard errors in parentheses; *,**,*** correspond to 10%,5%,1% significant level, respectively.

In Table 8, we see that, once conditioning variables are included in the regressions, diesel consumption still shows some evidence of divergence, but the statistical significance is

weaker. Petrol consumption shows evidence of conditional convergence, and the other variables have coefficients that do not permit an inference in either direction. The importance of the conditioning variables varies across the regressions, and the overall explanatory power of the regressions is not high (R^2's ranging from 0.15 to 0.34), but the results again are broadly consistent with those of Table 7 and state level regressions.

Table 8: Conditional Convergence Regressions – Regional Data

Dependent Variable	ΔDiesel Consumption	ΔPetrol Consumption	ΔDeposits	ΔCredit	ΔCereal Production
Independent Variable					
Constant	-4.64***	-4.77***	0.44**	0.39*	0.32
	(0.29)	(0.06)	(0.15)	(0.28)	(0.47)
Diesel Consn.	0.14*	0.32***	0.005	0.09	0.39***
1991	(0.09)	(0.09)	(0.08)	(0.15)	(0.09)
Petrol Consn.	0.06	-0.15**	0.05	0.03	-0.47***
1991	(0.09)	(0.08)	(0.08)	(0.09)	(0.15)
Deposits 1991	-0.11	-0.28***	-0.012	-0.09	-0.07
	(0.11)	(0.10)	(0.10)	(0.11)	(0.18)
Credit 1991	0.05	0.27***	-0.01	0.13	0.34**
	(0.11)	(0.10)	(0.09)	(0.10)	(0.17)
Cereal Prodn.	-0.04	-0.05	-0.10***	-0.14***	0.05
1991	(0.05)	(0.04)	(0.04)	(0.05)	(0.08)

Notes: All variables are natural logarithms and in per capita terms.
Dependent variable is change in the log of the per capita variable between later and base years.
Standard errors in parentheses; *,**,*** correspond to 10%,5%,1% significant level, respectively.

Finally, we include dummies for the different 'zones' of India – we use this term since we have used 'regions' for the smaller, sub state geographic units. Using the East and Northeast combined as the base zone[10], we include zonal dummies for the North, South, and West of the country. The results are presented in Tables 9 and 10. The results for convergence are broadly similar to the previous two tables, with some minor differences. The new result that emerges is the significance of the zonal dummies, particularly for the South and West. Since these dummies are positive and significant for most of the five measures of economic activity (cereal production in the West being the main exception), they suggest that at this level of aggregation there are some possible concerns, which deserve further investigation with disaggregated data. The difference across zones in these measures of economic activity is something that is not easily captured through regressions using state-level data, since the degrees of freedom are too few. However, the finding that the South and West of India have been doing better is consistent with earlier

[10] Since many of the missing observations are in the Northeast, we combine it with the Eastern sone.

analyses that have used SDP data. We turn to policy implications our results and preceding discussion in the conclusion.

Table 9: Absolute Convergence Regressions with Zonal Dummies – Regional Data

Dependent Variable	ΔDiesel Consumption	ΔPetrol Consumption	ΔDeposits	ΔCredit	ΔCereal Production
Independent Variable					
Constant	-4.53***	-4.73***	0.43***	0.39**	-0.22
	(0.06)	(0.08)	(0.15)	(0.19)	(0.19)
Diesel Consn. 1991	0.0012				
	(0.06)				
Petrol Consn. 1991		-0.08**			
		(0.04)			
Deposits 1991			-0.02		
			(0.03)		
Credit 1991				0.03	
				(0.04)	
Cereal Prodn. 1991					0.04
					(0.09)
South	0.34***	0.53***	0.31***	0.42***	0.38***
	(0.08)	(0.07)	(0.06)	(0.08)	(0.14)
North	0.28***	0.29***	0.13***	0.14***	0.16
	(0.07)	(0.07)	(0.06)	(0.07)	(0.13)
West	0.34***	0.36***	0.23**	0.29***	-0.19*
	(0.09)	(0.08)	(0.07)	(0.08)	(0.15)

Notes: All variables are natural logarithms and in per capita terms.
Dependent variable is change in the log of the per capita variable between later and base years.
Standard errors in parentheses; *,**,*** correspond to 10%,5%,1% significant level, respectively.

Table 10: Conditional Convergence Regressions with Zonal Dummies – Regional Data

Dependent Variable	ΔDiesel Consumption	ΔPetrol Consumption	ΔDeposits	ΔCredit	ΔCereal Production
Independent Variable					
Constant	-4.76***	-4.90***	0.32**	0.28	0.05
	(0.26)	(0.22)	(0.21)	(0.26)	(0.46)
Diesel Consn.	0.01	0.16**	-0.14	-0.06	0.28**
1991	(0.09)	(0.08)	(0.07)	(0.09)	(0.16)
Petrol Consn.	0.02	-0.13**	0.06	0.06	-0.33**
1991	(0.09)	(0.07)	(0.08)	(0.09)	(0.15)
Deposits 1991	0.02	-0.08	-0.20**	-0.09	0.19
	(0.11)	(0.09)	(0.09)	(0.11)	(0.19)
Credit 1991	0.05	0.27***	-0.01	0.13	0.34**
	(0.11)	(0.10)	(0.09)	(0.10)	(0.17)
Cereal Prodn.	-0.002	0.03	-0.03	-0.05	0.02
1991	(0.05)	(0.05)	(0.04)	(0.05)	(0.09)
South	0.37***	0.47***	0.43***	0.45***	0.25*
	(0.11)	(0.09)	(0.08)	(0.10)	(0.19)
North	0.28***	0.22***	0.20***	0.16***	0.15
	(0.08)	(0.07)	(0.06)	(0.08)	(0.14)
West	0.35***	0.32***	0.30***	0.29***	-0.18
	(0.10)	(0.09)	(0.08)	(0.10)	(0.18)

Notes: All variables are natural logarithms and in per capita terms.
Dependent variable is change in the log of the per capita variable between later and base years.
Standard errors in parentheses; *,**,*** correspond to 10%,5%,1% significant level, respectively.

5. Conclusion

We conclude by relating our analysis to India's federal polity and its attempts at economic reform. A federal system involves explicit and implicit balancing of the interests of its constituent units. Perceptions of fairness among the constituents units can matter as well as the objective material gains from being part of the larger nation.[11] India has faced these issues since independence (and earlier), and central policies have always incorporated inter-regional and inter-state considerations, in matters such as directing investment, controlling prices and restricting the movements of certain goods. The loosening of central controls that has been an important part of the reform package has heightened two related fears: first, that the poor would be left behind; second, that some constituent political units of the nation would be left behind.

[11] Of course, non-economic concerns such as language, culture and other aspects of identity are also extremely important, particularly in a nation as heterogeneous as India.

The evidence surveyed and presented in this paper suggests that the second of these fears may have been over emphasized. There are some indications of increases in regional inequality, but they are neither uniform nor overly dramatic. To some extent, increases in regional inequality are driven by factors that are necessary for accelerated growth – in particular, the more efficient allocation of private capital, foreign as well as domestic. The data also suggest (Table 5) that state government policies can make a difference: governments in poorer states such as Madhya Pradesh and Rajasthan have made strides in improving, on average, the relative standard of living of their constituents. Hence, liberalization does not necessarily leave certain states behind.

At the sub state level, some states may be seeing greater disparities emerging within their boundaries. One might guess that intra-state labor mobility is greater than across states, so that this problem may be more self-correcting than inter-state disparities. On the other hand, the problem may be mobility across rural and urban areas, and across social boundaries. The evidence is consistent with the view that the reforms have had a greater positive impact in urban areas, leaving rural areas to await meaningful agricultural reform (removing distortions on pricing and distribution, and improving infrastructure). Intra-state disparities also put the focus on effective state government policies, including building the fiscal and institutional capacity of nascent local governments to deliver local public goods and services.

The central government also may draw some policy lessons from the empirical evidence on regional inequality. Clearly, intergovernmental transfers cannot remove such inequalities. However, they can be designed to more clearly meet classic Musgravian horizontal equity objectives, without reducing incentives for fiscal discipline, than is the case now. In particular, streamlining the center-state transfer system can only help isolate any inter-state disparities that are likely to cause political tensions, and make clear the redistributive effort that is politically necessary. In this respect, it is important to recognize that implicit financial transfers by the central government, through its control of the financial system, have been important, and have often favored higher income states (Rao, Shand and Kalirajan, 1999).[12] Reducing the pervasive government presence in the financial sector can be an important complement to making the intergovernmental transfer system at all levels (center-state, state-local and center-local) more efficient, if inter-regional inequalities are to be clearly addressed by government policy.

Our conclusion is that India's record with respect to inequality in the post-reform period is not too bad, with respect to potential problems of growing regional disparities. Economic reform has actually done better than many commentators had expected. Clearly there are policy improvements that can help further in managing inequalities, but they are much more in the spirit of further reform than of any backpedaling.

[12] Tax reform is another area that has distributive implications across the states: the current tax system encourages tax exportation by richer states (Rao and Singh, 1998).

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