Measures of Economic Inequality: Relative or Absolute? An analysis in Indian context

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Abstract: *Should we consider only relative measure or absolute measure also in estimating economic inequality?* Many researchers raise objection against two widely and conveniently used relative measures of inequality – the Gini coefficient and Lorenz curve. Many of them argue that both relative and absolute measures of inequality should be given equal importance in judging the real nature of inequality. This paper tries to take up this debate and to estimate the trends and patterns of inequality by considering both relative and absolute inequality in Lorenz-Gini family in rural and urban India and its major states from 1983 to 2011-12. This paper also tries to introduce the estimates of trends and patterns of combined inequality for India and its major states for the same period by combining the rural and urban sectors together. The estimates of relative and absolute inequality give contradictory trends in India and its states in some years. Thus, this paper proposes that we should always consider both relative and absolute measures simultaneously in inequality consideration.

Keywords: Absolute inequality, Relative inequality, Rural inequality, Urban inequality, Combined inequality.

INTRODUCTION

Measurement of inequalities in income, consumption, health, security, liberty, capability etc. is a considerable debate in the recent phase. Inequality can be measured in relative or absolute terms: the "relative" measure is based on the difference between the most-advantaged and the least-advantaged, or in some metrics between the extreme and the median. The "absolute" measure focuses on the actual levels of income, consumption, health, liberty etc. between the best and the worst.

Neither the absolute measure of inequality nor the relative measure of inequality alone can give the satisfactory conclusion about the trends and patterns (or the nature) of inequality in an economy. Let us take a case of two people in a country in 1981 (arbitrarily taken this period). Let one person had an income of Rs.10 a day and the other person had an income of Rs.100 a day. With the kind of economic growth that seen over the past 35 years, the first person would now in 2016 have Rs.80 a day, while the second person would have Rs.800 a day. So if we focus on 'absolute' differences, inequality has gone up (from Rs. (100-10) = Rs.90 to Rs. (800-80) = Rs.720), while a focus on 'relative' differences suggests that inequality between these two people has remained the same. In addition, sometimes these two measures give the opposite trends of inequality. Johan P. Mackenbach [1] argues that such opposing trends for relative and absolute inequalities in health are quite common in European countries. For an example suppose that in a country 'A' the infant mortality rate declines from 150 to 75 among the rich and from 300 to 180 among the poor. This fictitious but realistic example illustrates a fundamental disagreement, because while everyone will welcome the decline in mortality, the resulting in magnitude of inequalities between rich and poor will not. Some will regret that inequalities have gone up because the rate ratio has increased from 2.0 (300/150) to 2.4 (180/75). Others will rejoice that inequalities have gone down because the rate difference has fallen from 150 (300-150) to 105 (180-75).

Now the problem is what measure should we consider in estimating inequality; absolute, relative or centrist? Yukiko Asada [2] argues that neither absolute nor relative inequality measure alone properly reflect our conception of inequality. An equal proportional increase in income increases the income inequality whereas an equal absolute addition reduces the income inequality. Francisco Azpitarte and Olga Alonso-Villar [3] provide an empirical illustration of pattern of inequality using Australian income data for the period 2001–2008. The results suggest that despite the reduction of relative inequality, inequality increased for most centrist value judgments. Corel Del Rio and Javier Ruiz-Castillo [4] provide an empirical work in the case

of Spain for the period 1980-81 to 1990-91 in this regard. They argue that 1990-91 household expenditures distribution in Spain dominates, in the relative Lorenz sense, the 1980-81 distribution, but the latter dominates the former in the absolute Lorenz sense. Kristof Bosmans, Koen Decancq and Andre Decoster [5] compare absolute, relative and intermediate views on the evolution of global inequality between 1980 and 2009. They argue that according to the relative view, inequality remains invariant after a uniform proportional change of all incomes whereas the absolute view requires invariance to a uniform change of all incomes with the same amount. A single measure of inequality that captures all dimensions of health improvement and inequality does not exist; therefore, it is advisable to apply different measures to best understand and compare inequalities over time or across population subgroups and countries, Cristina Masseria and Sara Allin [6].

Debate between relative measure and absolute measure of inequality

By economic inequality in a region/country, we mean the absence of equality in the distribution of economic variables like income, expenditure, wealth etc. among the individuals/households in that region/country. Economic inequality especially, income inequality occurs due to the existence of disproportionate distribution of total national income among households whereby the share going to the rich persons in a country is far greater than that going to the poorer persons. This is largely due to differences for income derived from ownership of property and to a lesser extent the result of differences in earned income. Inequality can be measured by a relative measure of inequality and an absolute measure of inequality in different families of inequality measures.

If X_1, X_2, …, X_n are income levels of n individuals of a region/country in non-decreasing order with mean income μ then Gini coefficient for income distribution of this population is given by

$$G = \frac{\sum_{i=1}^{n}\sum_{j=1}^{n}\left|X_i - X_j\right|}{2n^2\mu}$$. Some academicians prefer to

express Gini coefficient as $G = \dfrac{\sum_{i=1}^{n}\sum_{j=1}^{n}\left|X_i - X_j\right|}{2n(n-1)\mu}$.

It is a quantitative measure, a singular measure, an additive measure, a relative (as opposed to absolute) measure – relative to mean income and is a unit free measure. For infinite population it is an index measure, its value lying between 0 and 1 – relative in another sense – relative to maximum possible absolute or relative value of inequality. On the other hand,

Lorenz curve is given by the locus of percentage income appropriations by percentage cumulative populations having income in the non-decreasing order. It is a plural (as opposed to singular) measure, a qualitative measure, a relative (as opposed to absolute) measure, a unit free measure. It is also an index measure for infinite population. Gini coefficient is equal to Lorenz ratio. They use same principle of inequality measurement. Both of them are relative measures. Both of them are unit free measures. Both of them are index measures for infinite population. Lorenz curve is actually the graphical or plural counter-part of Gini coefficient. They belong to the same family. Let us call the family the Lorenz-Gini family.

Mondal [7] argues that both Gini and Lorenz Curve satisfy the 'principle of income transfer – the Pigou-Dalton principle', 'principle of proportionate additions to incomes', 'principle of additions to incomes', and 'principle of additions to persons'. In addition, they approximately but not exactly satisfy the 'principle of proportionate additions to persons'. But both the Gini and the Lorenz Curve fail to satisfy the 'principle of equal additions to incomes' and Gini fails to satisfy the 'principle of decomposition by subgroups' and the 'principle of decomposition by components of incomes'.

Actually inequality can be viewed both in absolute and relative senses. In the Lorenz-Gini family

the absolute measure of inequality is $\dfrac{\sum_{i=1}^{n}\sum_{j=1}^{n}\left|X_i - X_j\right|}{2n^2}$.

It is the pure per capita inequality and satisfies the **'Principle of** proportionate additions to persons' and the 'Principle of equal additions to incomes'. *An absolute measure of inequality is not unit free and so inequality comparison across countries using different units of measuring income or over time in the same country with inflationary conditions becomes inconvenient.* An absolute measure of inequality of this type has a fixed lower bound at 0 but its upper bound is not fixed. It is given by $\dfrac{n-1}{n}\mu$ when all income is enjoying by a single person. *For this reason, also an absolute measure of inequality is inconvenient for inequality comparison. It is also inconvenient for inequality comparison as it fails to compare inequality relative to mean income.*

In this family the relative measure of inequality is $\dfrac{\sum_{i=1}^{n}\sum_{j=1}^{n}\left|X_i - X_j\right|}{2n^2\mu}$. This is the Gini coefficient of the first type. It is the measure of

inequality per capita and per rupee of mean income and satisfies the 'Principle of proportionate additions to persons' and the 'Principle of proportionate additions to incomes'. *A relative measure of inequality is unit free and so inequality comparison across countries using different units of measuring income or over time in the same country with inflationary conditions becomes convenient. It is also convenient for inequality comparison as it compares inequality relative to mean income.* A relative measure of inequality of this type has a fixed lower bound at 0 but its upper bound is not fixed. It is given by $\frac{n-1}{n}$ when all income is enjoyed by a single person.

However, there is a strong debate between absolute measure of inequality and relative measure of in equality in any family of inequality measurement. Kolm [8] has well taken up this debate between absolute and relative inequality. He has been of the opinion that inequalities can measure by both the ways and the researchers in this field have used both of them. He has tried to define a relative measure of inequality as a 'rightist' measure of inequality as the richer section of the community or the capitalist class or their union prefers to accept it when income increases (by equal amount or by equal proportion) and an absolute measure of inequality as 'leftist' measure of inequality as the poorer section of the community or the labour class or the labour union prefers to accept it when income increases.

He writes:
"In May 1968 in France, radical students triggered a student upheaveal which induced a workers' general strike. All this was ended by the Grenelle agreements which decreed a 13% increase in all payrolls. Thus, laborers earning 80 pounds a month received 10 pounds more, whereas executives who already earned 800 pounds a month received 100 pounds more. The Radicals felt bitter and cheated; in their view, this widely increased incomes inequality. But this would have left unchanged an inequality index."

"And I have found many people who feel that it is an equal absolute increase in all incomes which does not augment inequality, whereas an equiproportional increase makes income distribution less equal or more unequal – and these were people of moderate views. When all incomes are multiplied by the same number, whereas a relative measure of inequality does not change, an absolute measure of inequality is multiplied by this number. Therefore, if we study variations of an absolute measure of inequality over time in an inflationary country, we must use real incomes, discounted for inflation; or if we make

international comparisons, we must use the correct exchange rates. This need not be done if we use a relative measure of inequality. Anyway, convenience could not be an alibi for endorsing injustice."

"The economic literature is, of course, relatively rich in opinions about the effects of equal or equiproportional variations in incomes on the inequality of their distribution. . . . Loria, Cannan, and Dalton feel that an equal addition to all incomes decreases inequality; an absolute measure of inequality of course does not satisfy this condition, whereas a relative measure of inequality does. For Dalton [9] again, an increase of all incomes in the same proportion increases inequality; a relative measure of inequality of course does not satisfy this property, whereas an absolute measure does. From this, we see that Dalton would have liked neither an absolute measure nor a relative measure of inequality. But the 'centrist' measures of inequality might suit his taste, since they satisfy both his requirements."

However, viewing relative measure of inequality as 'rightist' and absolute measure of inequality as 'leftist' is not completely true, because when income falls (by equal amount or by equal proportion) the richer section of the community or the capitalist class or their union prefers to accept an absolute measure of inequality and the poorer section of the community or the labour class or the labour union prefers to accept a relative measure. Anyway, these are two well-accepted views and Kolm himself was convinced of both the views. He has preferred to develop a 'centrist' view of inequality in between the two.

We are also actually convinced of both the views. We do not want that inequality remains constant with equal additions to incomes; rather we want that inequality fall. Similarly, we also do not want that inequality remains constant with proportionate additions to incomes; rather we want that inequality increase.

Trends in combined inequality in India
Economic inequality for India and its major states can be estimated only for expenditure and not normally for any other economic variable because NSSO collects household data only for expenditure of the sample households and not for income or wealth. NSSO itself estimates inequality for India and its states through Gini coefficients and Lorenz curves and we all use those estimates for such purpose. We also use the raw data published by NSSO and have our own estimates. The question of own estimation arises because we do not have full satisfaction from these two measures. In the present context, comparable absolute inequality in consumer expenditure can be easily measured if we have the values at constant prices. A

simple absolute measure of inequality can be obtained by multiplying Gini coefficient by the respective average MPCE at constant prices. However, this measure is not very useful in the absolute context as the change in inequality from transfer of expenditure from one person to another is dependent on the number of persons present in between them and not on their income difference.

In India NSSO published the raw data of consumption expenditure for rural and urban areas separately and based on these data NSSO itself calculate inequality for rural and urban areas separately. However, the overall inequality (better named as combined inequality) in India and its major states can be calculated by combining the raw data of consumption expenditure for rural and urban areas with their corresponding population.

Let us have a quick look into the estimates of Gini coefficient as a relative measure of inequality and absolute Gini as an absolute measure of inequality for India and its major states over the seven NSS quinquennial rounds. The simple trends of rural, urban and combined relative as well as absolute inequality in Lorenz-Gini family in India from 1983 to 2011-12 are represented in table 1. The trends in combined relative and combined absolute income inequalities in major states of India in this family with their corresponding rank in the referred period are represented in table 2. Change in both types of combined inequalities in major states of India in this family in the referred period is represented in table 3.

Table 1: Trends in different types of rural, urban and combined inequality in Lorenz-Gini family in India from 1983 to 2011-12

Year	Relative Inequality (Gini Coefficient)			Absolute Inequality (Absolute Gini)		
	Rural	Urban	Combined	Rural	Urban	Combined
1983	0.297	0.325	0.318	188.30	362.99	237.61
1987-88	0.298	0.352	0.333	220.08	446.16	289.42
1993-94	0.282	0.340	0.324	209.35	455.74	290.38
1999-00	0.260	0.342	0.320	211.49	515.92	320.96
2004-05	0.300	0.371	0.364	253.37	566.88	378.70
2009-10	0.291	0.381	0.366	269.96	680.39	435.76
2011-12	0.307	0.385	0.374	329.30	774.46	511.44

Combined inequalities are calculated by the authors
Absolute inequality is measured by Rs. at 2009-10 constant prices

From the figure 1, it is seen that rural relative inequality increases from 0.297 in 1983 to 0.298 in 1987-88 in India. Then it decreases from 0.298 in 1987-88 to 0.282 in 1993-94 and to 0.260 in 1999-2000. Then it increases to 0.300 in 2004-05, further decreases to 0.291 in 2009-10 and again increases to 0.307 in 2011-12. Thus, there is a mixed trend in relative inequality in Lorenz-Gini family measured by Gini coefficient in rural India from 1983 to 2011-12.

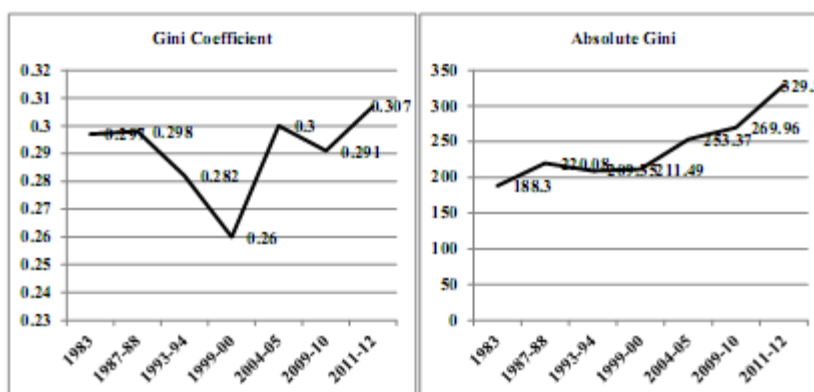**Fig-1: Graphical representation of trends in rural relative and rural absolute inequality in Lorenz-Gini family in India from 1983 to 2011-12**

Rural absolute inequality in Lorenz-Gini family measured by absolute Gini in India increases from Rs. 188.30 in 1983 to Rs. 220.08 in 1987-88. Then it decreases from Rs. 220.08 in 1987-88 to Rs. 209.35 in 1993-94. It further increases to Rs. 211.49 in 1999-

2000, Rs. 253.37 in 2004-05, Rs. 269.96 in 2009-10 and Rs. 329.30 in 2011-12.

However, a contradiction arises in the years 1999-2000 and 2009-10; relative inequality decreases over the previous period while absolute inequality increases in rural India.
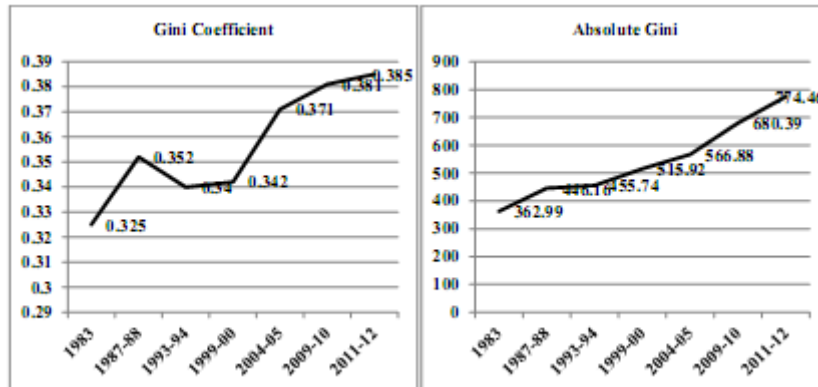

Fig-2: Graphical representation of trends in urban relative and urban absolute inequality in Lorenz-Gini family in India from 1983 to 2011-12

From the figure 2, it is seen that urban relative inequality increases from 0.325 in 1983 to 0.352 in 1987-88 in India. Then it decreases from 0.352 in 1987-88 to 0.340 in 1993-94 and in further increases to 0.342 in 1999-2000, 0.371 in 2004-05, 0.381 in 2009-10 and 0.385 in 2011-12. Thus, there is a mixed trend in relative inequality in Lorenz-Gini family measured by Gini coefficient in urban India in the referred period.

Urban absolute inequality in Lorenz-Gini family measured by absolute Gini in India is continued to increase in every years in the referred period. It increases from Rs. 362.99 in 1983 to Rs. 446.16 in 1987-88, Rs. 455.74 in 1993-94, Rs. 515.92 in 1999-2000, Rs. 566.88 in 2004-05, Rs. 680.39 in 2009-10 and Rs. 774.46 in 2011-12.

However, a contradiction arises in 1993-94; relative inequality decreases over the previous period while absolute inequality increases in urban India.

From the figure 3, it is seen that combined inequality increases from 0.318 in 1983 to 0.333 in 1987-88 in India. Then it decreases from 0.333 in 1987-88 to 0.324 in 1993-94 and further decreases to 0.320 in 1999-2000. Then it increases to 0.364 in 2004-05, 0.366 in 2009-10 and 0.374 in 2011-12. Thus, there is a mixed trend in combined relative inequality in Lorenz-Gini family measured by Gini coefficient in India in the referred period.

Combined absolute inequality in Lorenz-Gini family measured by absolute Gini in India is continued to increase in every years in the referred period. It increases from Rs. 237.61 in 1983 to Rs. 289.42 in 1987-88. It further increases to Rs. 290.38 in 1993-94, Rs. 320.96 in 1999-2000, Rs. 378.70 in 2004-05, Rs. 435.76 in 2009-10 and Rs. 511.44 in 2011-12.
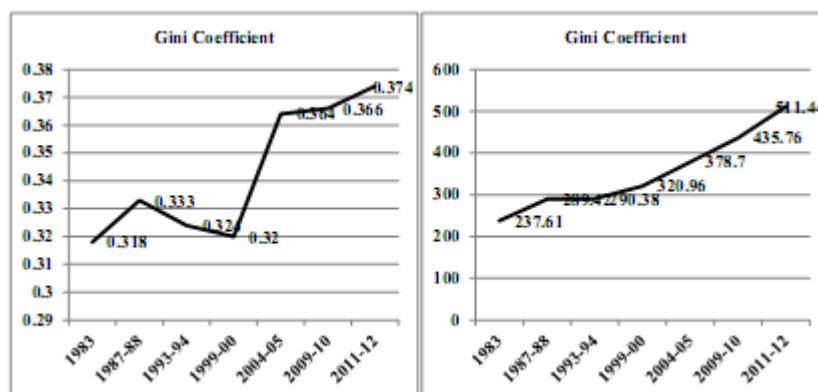

Fig-3: Graphical representation of trends in combined relative and combined absolute inequality in Lorenz-Gini family in India from 1983 to 2011-12

However, a contradiction arises in the years 1993-94 and 1999-2000; combined relative inequality decreases over the previous period while combined absolute inequality increases in India.

Now we are interested to check whether each state holds the same rank among other states for measuring both types of inequality in India or not.

Table 2: Trends in combined relative and absolute inequality in major states of India from 1983 to 2011-12 in Lorenz-Gini family

States	Combined Inequality (1983)				Combined Inequality (1987-88)				Combined Inequality (1993-94)			
	Relative	Rank	Absolute	Rank	Relative	Rank	Absolute	Rank	Relative	Rank	Absolute	Rank
Andhra Pradesh	0.304	8	227.28	9	0.331	4	283.46	7	0.309	5	270.60	8
Assam	0.204	15	138.34	15	0.254	15	199.34	13	0.218	15	164.79	14
Bihar	0.271	13	156.62	14	0.274	14	183.66	15	0.247	14	153.82	15
Gujarat	0.267	14	221.02	10	0.274	13	248.74	11	0.277	11	272.81	7
Haryana	0.293	10	305.94	2	0.288	12	306.99	5	0.301	8	334.01	4
Karnataka	0.323	5	257.58	7	0.323	7	266.39	8	0.309	6	270.57	9
Kerala	0.343	2	308.90	1	0.345	3	371.77	2	0.307	7	346.93	2
Madhya Pradesh	0.304	7	199.24	11	0.324	6	253.30	10	0.313	3	247.86	11
Maharashtra	0.334	4	283.38	4	0.377	1	376.39	1	0.373	1	391.48	1
Orissa	0.281	12	172.76	13	0.297	10	197.62	14	0.282	10	186.62	13
Punjab	0.293	10	305.94	2	0.293	11	353.52	3	0.274	13	342.59	3
Rajasthan	0.336	3	267.56	6	0.326	5	297.99	6	0.276	12	259.50	10
Tamil Nadu	0.346	1	273.09	5	0.357	2	320.13	4	0.340	2	327.14	5
Uttar Pradesh	0.300	9	195.38	12	0.302	9	233.52	12	0.299	9	241.09	12
West Bengal	0.321	6	237.71	8	0.310	8	264.67	9	0.310	4	283.15	6

Table 2 contd…

States	Combined Inequality (1999-00)				Combined Inequality (2004-05)				Combined Inequality (2009-10)			
	Relative	Rank	Absolute	Rank	Relative	Rank	Absolute	Rank	Relative	Rank	Absolute	Rank
Andhra Pradesh	0.293	6	269.82	9	0.346	7	365.51	9	0.362	3	480.92	5
Assam	0.251	13	201.93	13	0.252	14	230.75	13	0.284	14	272.11	13
Bihar	0.232	15	159.54	15	0.238	15	159.67	15	0.253	15	184.14	15
Gujarat	0.286	8	332.03	7	0.332	10	392.25	6	0.338	7	457.18	6
Haryana	0.262	12	343.20	6	0.344	9	485.69	3	0.335	9	523.79	4
Karnataka	0.317	3	346.35	5	0.364	4	374.11	8	0.348	5	400.61	8
Kerala	0.289	7	396.44	3	0.369	3	604.30	1	0.469	1	1029.94	1
Madhya Pradesh	0.297	5	242.20	12	0.356	6	298.93	11	0.352	4	346.16	10
Maharashtra	0.353	2	424.97	2	0.391	1	472.31	4	0.404	2	628.88	2
Orissa	0.272	10	188.86	14	0.326	12	221.45	14	0.327	11	263.12	14
Punjab	0.263	11	356.50	4	0.344	8	518.46	2	0.334	10	556.82	3
Rajasthan	0.244	14	251.87	10	0.302	13	306.32	10	0.295	13	344.41	11
Tamil Nadu	0.371	1	454.09	1	0.376	2	455.77	5	0.337	8	441.65	7
Uttar Pradesh	0.280	9	243.59	11	0.326	11	292.78	12	0.312	12	295.50	12
West Bengal	0.309	4	300.51	8	0.358	5	385.27	7	0.348	6	393.15	9

Table 2 contd…

States	Combined Inequality (2011-12)			
	Relative	Rank	Absolute	Rank
Andhra Pradesh	0.330	9	514.85	7
Assam	0.278	14	275.86	13
Bihar	0.248	15	218.82	15
Gujarat	0.321	10	499.16	8
Haryana	0.354	6	702.06	3
Karnataka	0.431	2	722.86	2
Kerala	0.438	1	1022.05	1
Madhya Pradesh	0.358	5	390.60	11
Maharashtra	0.373	3	629.84	4
Orissa	0.315	12	272.01	14
Punjab	0.321	10	615.66	5
Rajasthan	0.298	13	406.58	10
Tamil Nadu	0.343	7	555.21	6
Uttar Pradesh	0.336	8	348.36	12
West Bengal	0.370	4	485.84	9

From the table 2, it is seen that majority of the states cannot hold the same rank in measuring both types of inequality in the referred period. However, in 1983 the states Assam, Karnataka and Maharashtra hold the same rank for both types of inequality. In 1987-88 and 1993-94, only Maharashtra holds the same rank. In 1999-2000, the states Assam, Bihar, Maharashtra and Tamil Nadu hold the same rank. Bihar holds the same rank in 2004-05. In addition, Bihar, Kerala, Maharashtra and Uttar Pradesh hold the same rank in 2009-10 and Assam, Bihar, Karnataka, Kerala and Maharashtra hold the same rank in 2011-12.

Table 3: Change in both types of combined inequality in major states of India from 1983 to 2011-12 in Lorenz-Gini family

States	1987-88		1993-94		1999-00		2004-05		2009-10		2011-12	
	Δ Rel	Δ Abs	Δ Rel	Δ Abs	Δ Rel	Δ Abs	Δ Rel	Δ Abs	Δ Rel	Δ Abs	Δ Rel	Δ Abs
Andhra Pradesh	0.027	56.18	-0.022	-12.86	-0.016	-0.78	0.053	95.69	0.016	115.42	-0.032	33.93
Assam	0.050	61.00	-0.037	-34.55	0.033	37.14	0.001	28.83	0.032	41.35	-0.006	3.75
Bihar	0.003	27.04	-0.027	-29.85	-0.015	5.72	0.006	0.13	0.015	24.47	-0.005	34.68
Gujarat	0.007	27.71	0.003	24.07	0.009	59.23	0.046	60.21	0.005	64.93	-0.017	41.98
Haryana	-0.005	1.05	0.013	27.02	-0.040	9.18	0.082	142.49	-0.009	38.10	0.019	178.27
Karnataka	0.000	8.81	-0.014	4.18	0.008	75.77	0.047	27.76	-0.016	26.51	0.083	322.25
Kerala	0.003	62.87	-0.038	-24.84	-0.018	49.51	0.080	207.85	0.100	425.65	-0.031	-7.90
Madhya Pradesh	0.020	54.05	-0.011	-5.44	-0.016	-5.65	0.059	56.73	-0.004	47.23	0.006	44.44
Maharashtra	0.043	93.01	-0.003	15.09	-0.020	33.50	0.037	47.34	0.013	156.56	-0.031	0.96
Orissa	0.016	24.86	-0.015	-10.99	-0.010	2.23	0.053	32.59	0.001	41.67	-0.012	8.89
Punjab	0.000	47.58	-0.019	-10.93	-0.012	13.91	0.082	161.97	-0.011	38.36	-0.013	58.84
Rajasthan	-0.010	30.43	-0.050	-38.49	-0.032	-7.63	0.058	54.45	-0.007	38.10	0.003	62.16
Tamil Nadu	0.011	47.04	-0.017	7.01	0.030	126.95	0.005	1.68	-0.039	-14.13	0.006	113.56
Uttar Pradesh	0.002	38.14	-0.003	7.57	-0.020	2.50	0.046	49.19	-0.014	2.72	0.024	52.86
West Bengal	-0.010	26.97	0.000	18.48	-0.002	17.36	0.049	84.76	-0.010	7.88	0.022	92.69

Δ Rel: Change in relative inequality over the previous survey year
Δ Abs: Change in absolute inequality over the previous survey year

From the table 3, it is observed that in some states the relative inequality and the absolute inequality are grown in the opposite direction for the referred period. This contradictory result is observed for the states Haryana, Rajasthan and West Bengal in 1987-88, the states Karnataka, Maharashtra, Tamil Nadu and Uttar Pradesh in 1993-94, the states Bihar, Haryana, Kerala, Maharashtra, Orissa, Punjab, Uttar Pradesh and West Bengal in 1999-2000, the states Haryana, Karnataka, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh and West Bengal in 2009-10 and the states Andhra Pradesh, Assam, Bihar, Gujarat, Maharashtra, Orissa and Punjab in 2011-12.

Some remarkable findings and concluding remarks:
1. From the table 1, it is seen that there is a contradictory trends between relative and absolute inequality. In the years, 1999-2000 and 2009-10 the rural relative inequality decreases while rural absolute inequality increases. The same contradiction arises for urban inequality in the year 1993-94 and for combined inequality in the years 1993-94 and 1999-2000.This indicates that these two measures give the conflicting conclusion about inequality.
2. From the table 2, it is seen that the states holding the rank of relative inequality and the rank of absolute inequality in any year is not same in majority of the cases suggesting that these two measures give the contradictory conclusion about inequality.
3. From table 3, it is also seen that some states bearing the opposite sign of the growth of relative inequality and the growth of absolute inequality in every years indicating that these two measures give the conflicting conclusion about inequality.

Thus to have a complete view of inequality, we should have a plural view, it should be measured in both ways – relative and absolute. This may lead to a conflicting conclusion in both inter-temporal and inter-state comparisons. If we want to avoid this conflict and try to develop a singular measure, a centrist measure, we shall be in trouble once again because it is difficult to determine the relative weights of absolute and relative inequalities. We shall not go for that, rather we shall present them separately.

REFERENCES
1. Mackenbach JP. Should we aim to reduce relative or absolute inequalities in mortality? European Journal of Public Health. 2015;25(2):185.
2. Asada Y. On the choice of Absolute or Relative Inequality Measures. The Milbank Quarterly. 2010; 88(4): 616-622.
3. Azpitarte F, Villar OA. Dominance Criterion for Measuring Income Inequality from a Centrist View: The Case of Australia. Melbourne Institute

Working Paper Series Working Paper No. 3/12; 2012.

4. Rio CD, Castillo JR. Intermediate Inequality and Welfare: The Case of Spain, 1980-81 to 1990-91", Review of Income and Wealth. 2001; 47(2).

5. Bosmans K, Decancq K, Decoster A. The evolution of global inequality: absolute, relative and intermediate views. Center for Economic Studies Discussions Paper Series (DPS) 11.03; 2011.

6. Masseria C, Allin S. Methodological note: Relative and absolute inequalities in health", London school of economics and political science, July 2008.

7. Mondal D. Trends and Patterns of Economic Inequality in Major States of India in the Liberalized Era: A Critical View. Arthabeekshan. 2014; 22(4): 38-53.

8. Kolm SC. Unequal Inequalities: I" Journal of Economic Theory. 1976; 12:416-442.

9. Dalton H. The Measurement of the Inequality of Incomes. Economic Journal. 1920; 30.