

The background of the cover is a detailed architectural floor plan in a light green color on a dark green background. The plan shows various rooms, corridors, and structural elements, including a large curved area with a hexagonal pattern. The lines are thin and precise, creating a complex geometric pattern.

REVISITING INEQUALITY

**THEORETICAL AND METHODOLOGICAL ADVANCES
WITH EMPIRICAL EXAMPLES FROM INDIA**

Edited by

Achin Chakraborty and Simantini Mukhopadhyay



Revisiting Inequality

This volume discusses the current state of knowledge on the conceptual understanding of inequality. The book poses a range of empirical puzzles in the Indian context and examines inequalities across categories of the region of residence, caste, and sex, using a fascinating range of outcome indicators, comprising education, health, earnings, self-employment, and crime.

The empirical chapters of this volume use various large-scale secondary data sources to expose the deep-rooted, structural inequalities in the Indian society. It answers some of the pertinent questions around inequality such as why do the backward regions of India continue to remain backward, both in terms of economic and human development indicators? Why do enterprises owned by backward caste individuals have systematically lower business earnings? Are backward castes and women more likely to face crime when their relative status improves? How do the circumstances that children find given at birth influence their learning outcomes? etc.

The book will be of interest to teachers, students, and researchers of economics of education, development studies, development economics, and Indian economics. It will also be useful for policymakers, academicians, and anyone curious to learn about inequality.

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Revisiting Inequality

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with Empirical Examples from India

**Edited by Achin Chakraborty and
Simantini Mukhopadhyay**

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1 Introduction

Achin Chakraborty and Simantini Mukhopadhyay

1.1 Prelude

The hope that the world would become richer and less unequal fermented after the Second World War and continued till the middle of the 1970s. As Milanovic (2005) puts it,

The second half of the twentieth century seemed full of big promises: vast increases in productivity brought about by technological progress and accumulation of capital would open up new vistas to humankind. Development would spread to the four corners of the world, and penury and want would be (almost) a thing of the past.

However, most of these promises were scarcely met. The experience of economic growth differed across countries. Towards the end of the last century, China and India were growing spectacularly, but growth rates stagnated and sharply declined in countries of Africa, Latin America, and other transition economies (Milanovic 2005). Albeit high rates of growth in the two most populous countries led to a decline in global income inequality in relative terms, absolute gaps in income increased between high-income and low-income countries in the last three decades (Niño-Zarazúa et al. 2017; UN 2020). It is now well-known that the fruits of growth are unduly enjoyed by those at the very top of the income distribution and '[t]hose soaring ideas' of a shared global prosperity seem 'finally to have crashed to Earth' (Stiglitz 2019).

Even within the high-growth countries, there were huge gaps in income and human development indicators. Recent research showing increasing wealth inequality and declining share of wages seems to indicate that most countries are still far from their inequality possibility frontiers (UN 2020). Shorrocks et al. (2018) famously showed that less than 1% of global wealth was owned by the bottom half of the world population and about half of it was owned by the richest 1% in 2018. Improvements in labour productivity have been accompanied by a stagnation of wage rates in many countries between 1995 and 2014 (UN 2020). Piketty (2013) argued that in the absence of government

intervention to increase wage rates and wealth taxes, the share of capital in GDP would continue to rise as the growth rate would fall short of the rate of return to capital.

Again, indicators in income and non-income spaces vary systematically across sex and social group affiliation (such as race and caste) in varying degrees in different countries. Research on such ‘horizontal inequalities’ has shown that a decline in overall inequality may not be accompanied by an improvement in welfare outcomes for all population sub-groups. Ethnic minorities in different countries have been shown to have higher multidimensional poverty compared to the national averages. The number of dimensions in which they experienced deprivations was also higher (UN 2020). Research in India has shown that the likelihood of escaping poverty was lower for Scheduled Castes (SCs) and Scheduled Tribes (STs), the two historically disadvantaged groups (Dang and Lanjouw 2018).

High levels of spatial or regional inequality continue to plague the world. During the last two decades of the twentieth century income outcomes kept diverging across sub-national units (states/provinces) in various countries including India and China. While there was a convergence in the incomes of states in the United States, Brazil, which had a high degree of regional inequality, displayed no such trend (Milanovic 2005). In India, the poor who lived in the backward states also had the lowest improvement in certain human development outcomes (Mukhopadhyay and Chakraborty 2020).

1.2 The Trajectory of Inequality Research

The trajectory of research in development economics addressing distributional questions in the last three decades of the previous century has been studied and characterised by important inequality scholars. Grusky and Kanbur (2006) divide it into two phases – the first phase started with Atkinson’s seminal paper ‘On the Measurement of Inequality’ and lasted for about 15 years; this was followed by the second phase, which continued till the *Handbook of Income Distribution*, edited by Atkinson and Bourguignon was published in 2000 (Atkinson and Bourguignon 2000). The third phase of inequality research began after this and the volume by Grusky and Kanbur (2006) would itself be included in it.

The first phase was marked by what they call a ‘great conceptual ferment’. It was during this period that value judgements were operationalised in the conceptualisation and measurement of economic inequality (Sen 1973). Back then, this was a path that economists cautiously eschewed. Another important strand of literature during this phase asked if the utilitarian framework could adequately yield policy prescriptions on the distributional question. This was an area which thrived from the cross-fertilisation between economics and philosophy when the ideas of philosophers like Rawls and Nozick were translated to the parlance of economics in the works of Arrow and Sen. Sen (1980) advocated using the space of basic capability for assessing equality and showed how

this framework was superior to alternative characterisations of equality. Alongside, important questions were asked regarding the sanctity of the household as a unitary entity in addressing distributional issues. It was argued that many women in developing countries were additionally deprived because of pro-male biases in intra-household allocation.

Though the second phase lacked the conceptual innovativeness of the first phase, important contributions were made in the application of the concepts. Distributional implications of macroeconomic policies, particularly in developing economies, were fiercely debated. The availability of large-scale secondary datasets facilitated applied empirical work. However, as Grusky and Kanbur (2006, p.8) note, by the end of the last century, while the ‘Rawlsian objective function’ had secured a place in the economists’ jargon, ‘philosophical issues no longer animate(d) them or their graduate students to the same extent that they did twenty or thirty years ago’.

The third phase ensued at the beginning of this century and we believe that we are still in this phase. It was marked by a renewed interest in moral philosophical questions around poverty and inequality. Conceptual innovations resurfaced to address new questions that emerged and old questions which demanded newer answers in a rapidly changing world. Also, this phase seemed to bear the promise of a fruitful dialogue between economists and sociologists to understand inequality. Till then, economists had almost exclusively concentrated on ‘distributional inequalities’ and sociologists had been largely interested in ‘relational inequalities’, meaning inequalities which are embedded in the social structure in the form of relations of ‘superordination’ and ‘subordination’ (Beteille 1983). In economics, there was a long tradition of understanding inequality as a difference between individuals, without placing them in relation to one another, paying scant heed to social groupings. Again, economists had mostly focused on inequality in the income space. Grusky and Kanbur (2006: p. 17) point out that Sen’s thrust on equality in capabilities rather than outcomes came close to the emphasis placed by sociologists on *class*, the latter being a given bundle of correlated structural conditions (such as educational attainment, earnings and health) and thus a marker of ‘life-chances’. Both the capability approach and the conception of class ask to what extent opportunities are determined by endowments, given that preferences and providence may vary for individuals.

Another related concept which gained a lot of popularity in applied work and policy documents was that of equality of opportunity (Roemer 1993; Roemer and Trannoy 2016). Based on the powerful yet simple idea that one’s chances of being successful in life should be independent of circumstances beyond her control, it became an immensely popular concept, particularly in the policy discourse. The 2030 Agenda of the internationally agreed development goals includes equalising opportunities and recognises that circumstances such as sex, economic status, and race severely limit opportunities for individuals. However, some recent studies make a critique of this approach by pointing out that the distinction between opportunity and outcome, and that

between circumstance and effort often become tricky (Kanbur and Wagstaff 2016; Kanbur 2016). To quote Wagstaff and Kanbur (2015: 1243), ‘the idea is not quite as useful as it might at first glance appear and is in fact rather dangerous’.

The inequality of opportunity approach and the capability approach, both comprising extensive empirical work in the third phase of inequality research, may arguably be called the two most popular approaches to the assessment of inequality. While both these methods continue to be used prolifically to inform policy discourses, scholars have pointed out the pitfalls of focusing on equalising opportunities, particularly from the policy stance. Though empirical works using the capability approach have mostly focused on the equalisation of outcomes in the space of functionings, Kanbur (2016) cautions that using the approach to analyse and evaluate the equalisation of opportunity would be problematic for similar reasons.

Nevertheless, it is important to note that despite apparent similarities between the two approaches, Sen’s notion of ‘capability equality’ has fundamental differences with ‘equality of opportunity’ and has the potential for refining narrow egalitarianism. The attractiveness of the idea of ‘equality of opportunity’ seems to lie in its incorporation of a central role for personal responsibility into the definition of fairness. A distinction is drawn between inequalities that are due to personal responsibility, and which may therefore be ethically acceptable, and those that are not, which may therefore be the subject of egalitarian concern. ‘A level playing field’, it is argued, would eliminate inequalities due to morally irrelevant circumstances, and therefore the remaining inequalities in outcome would reflect only differential personal efforts, which is morally acceptable. The problem with this overwhelming importance given to the idea of equality of opportunity is that those who think inequality of outcome is irrelevant tend to believe that, once a level playing field for the race of life has been established, we should not bother about the outcomes. But the outcome matters. As Kanbur and Wagstaff (2016) note, it would be morally repugnant to ‘condition the doling out of soup on an assessment of whether it was circumstance or effort which led to the outcome of the individual ... to be in the soup line.’ We argue that Amartya Sen’s advocacy of ‘capability equality’, even though apparently captures the idea of equality of freedom in which ‘opportunity freedom’ is one of the two aspects of the notion of freedom he articulates (the other being ‘agency freedom’), is not to be equated with ‘equality of opportunity’ a la Roemer et al. The capability approach has the potential to embrace a more expansive meaning of freedom as it includes the social conditions of freedom.

Application of the capability approach has led to a noticeable shift from the singular space of income to multiple dimensions of well-being for the evaluation of inequality in recent times, even in policy documents. The recent years have witnessed a surge in studies discussing conceptual and empirical issues in assessing multidimensional inequality.

In the third phase of inequality research, economists drew on the works of sociologists to understand group inequality (Majumdar and Subramanian 2001;

Subramanian and Majumdar 2002, among others). Though some scholars vouched for the salience of ‘pure’ or interpersonal inequality in the non-income space, there was an overwhelming thrust on group inequality, particularly in the context of health outcomes (O’Donnell et al. 2008). An important strand of literature argued that multiple axes of social power interacted simultaneously in a complex web and determined the well-being outcomes of individuals. Quantitative methods to measure intersectional inequalities draw heavily on research in Sociology and are still an emerging area of research (Sen et al. 2009; Mukhopadhyay and Chakraborty 2018). On the other hand, sociologists like Therborn (2013) place their analysis of inequality within the framework of Sen’s capability approach using insights from economics, social epidemiology, history, and moral philosophy.

The level of excitement in inequality research in the third phase perhaps surpassed the expectations of the contributors to the volume edited by Grusky and Kanbur (2006). There was a resurgence of interest in conceptual (often interdisciplinary) and empirical understanding of inequality in the globalised world that was becoming more and more polarised. The great recession of 2007–2009 undoubtedly propelled much of the literature of the third phase. Prior to this crisis, it had become unfashionable (‘quasi-taboo’ to quote Goldhammer (2017)) in mainstream economics to talk of the systemic inequities of neoliberal capitalism. Post the crisis, it was ‘a golden age for studying inequality’ (*The Economist* 2016), marked by seminal and back-to-back contributions from leading scholars. Piketty’s *Capital in the Twenty-First Century* (2013) became an instant bestseller and prompted discussions and debates between economists, political scientists, sociologists, and historians worldwide (Milanovic 2017). Stiglitz (2013) wrote that the year 2011 was ‘a moment in history’ when people in different countries took to the streets, voicing against rising inequality and the failure of the governments to address the inherent unfairness in the existing economic and political systems. Stiglitz (2015) further argued that inequality is essentially a choice that results from ages of misplaced and unfair policy priorities. Piketty (2020: p. 12) argued along similar lines that ‘inequality is neither economic nor technological; it is ideological and political and that every ‘inequality regime’ devises its own narratives and discourses to justify and naturalise inequality. Modern societies, for instance, legitimise inequality by resorting to the narrative of property, entrepreneurship, and meritocracy – everyone has equal opportunities in the market and the wealthiest are the most deserving; moreover, everyone in the society benefits from the accumulation of wealth. Recent works also go beyond description and measurement and seek ways to assuage rising inequalities in a globalised world (Atkinson 2015; Stiglitz 2019, among others).

1.3 About This Volume

Despite the existence of a large volume of theoretical and empirical research on the complex interconnection between economic growth and inequality,

particularly on how inequality interferes with the link between economic growth and poverty (Ravallion 2005), there seems to be an apparent confusion in important government documents. For instance, in the alleged attempt to legitimise rising inequalities in the country, the *Economic Survey 2020–2021* of the Indian Government (GOI 2021) misrepresents data and claims that unlike in advanced countries, in India, economic growth and inequality converge in terms of their effect on human development indicators (Mukhopadhyay and Chakraborty 2021). In the face of such public reports scarcely acknowledging the centrality of inequality in the understanding of the functioning of the Indian economy, the empirical chapters of this volume expose the structural and deep-rooted inequalities in India. *India Inequality Report 2022* (OXFAM 2021) highlights that the neglect towards socioeconomic inequality in policy thinking has led to the formulation of digital solutions to challenges of the physical world. Acknowledging that inequality is often a matter of public and social choice warrants a relook at how we conceptualise, measure, and assess inequality.

The purpose of this book is threefold. First, it revisits some of the fundamental moral philosophical questions around distributional issues in the current context. As discussed in the previous section, many of these questions had been relegated to the backseat during the second phase of inequality research. Second, it has contributions from leading inequality scholars which summarise and advance the current state of knowledge on certain pressing questions in inequality measurement. Third, it includes a rich set of empirical studies in the Indian context, covering a wide range of issues such as education, health, self-employment, and crime. Region of residence, caste, class, and sex are some of the axes of social power along which these inequalities are studied. It also touches upon the intersection of some of these axes in determining certain human development outcomes. The volume provides a balanced mix of authors and includes contributions from very senior and renowned scholars, mid-career researchers, and graduate students in the advanced stages of doctoral work. We believe that it will arouse the interest of anyone curious about inequality – students, researchers, and policy makers. Familiarity with the technical literature in economics on the measurement of inequality is desirable for reading the two chapters on measurement. The rest of the book can be appreciated by anyone familiar with the language of social sciences.

1.3.1 Conceptual and Measurement Issues in Inequality

The first section deals with conceptual and measurement issues in inequality, and the first article in which is conceptual. At a time when public documents seek to legitimise rising inequalities, Narendar Pani writes on ‘Instrumentality of inequality’ (Chapter 2). The paper asks if the Keynesian contention that inequalities enabled capital accumulation, which in turn led to higher growth in the earlier part of the last century, should at all be accepted as a valid

economic strategy, given its ethical repercussions. He juxtaposes the Keynesian and the Rawlsian positions and points out that both Keynes and Rawls focus on ‘instrumental inequality’, a concept which looks into *what inequality does*. The alternative conception is that of constitutive inequality – *what inequality is*. Those interested in constitutive inequality would examine the constituent elements of inequality, implicitly assuming that every difference is an inequality and is thus ethically unacceptable. The slogan of the Occupy Wall Street Movement, ‘We are the 99 percent’, represented the constitutive view of inequality. It was enough for the protestors to make this statement, since the movement was based on the premise that differences in the income share of the top 1% vis-à-vis the rest of the population were inherently unacceptable. Assessing or measuring the extent of inequality is thus the main objective for those interested in constitutive inequality.

Yet, some differences are acceptable, even celebrated in most societies. Take the example of excellence in academic performance, sports, and music. It is recognised that brilliance in these fields is exclusive to certain individuals whose achievements would benefit the society as a whole. The emphasis here is on what these differences lead to, to wit, what inequality does – the instrumentality of inequality. The paper draws on important and recent works in moral philosophy (Gert and Gert 2016) and makes a further distinction between descriptive and normative inequality. Defining inequality as a difference which is unacceptable, it conceptualises the negotiation between rational and actual or existing beliefs about inequality. While rational beliefs are the basis of normative inequality, descriptive inequality is that difference, which is considered unacceptable in the actually existing society. Even normative inequality may be questioned and redefined, though such debates would be within the realm of reason. The practice of untouchability in India, though a normative inequality, would not qualify as descriptive inequality since it survived for centuries in the country.

Using data from a survey of construction workers in the South Indian metropolis of Bengaluru, and surveys of three villages in Jharkhand, the home state of some of these workers, the paper illustrates that instrumentality of inequality would be the critical link to understanding the chain of social and economic transformation. It then discusses how such changes have deep-rooted macroeconomic consequences. The spatial differences and their acceptability in the particular empirical example had direct consequences for the relationship between the shift from agriculture and urbanisation. This may even be used to understand the widening gap between the share of agriculture in GDP and the share of the rural population in the total population, which is unique to India.

The first chapter is followed by two articles dealing with frontier Issues in the Measurement of Inequality. In his previous works, Sreenivasan Subramaniam has shown how budgetary rules may be conceived with the objective of the redress of poverty through direct income transfers (Gangopadhyay and

Subramanian 1992; Subramanian 2006). Different combinations of poverty indices and ‘egalitarian’ restrictions on optimal transfers were explored to shape policy prescriptions on optimal budgetary allocations. In the third chapter of this volume, Subramanian extends his previous work and shows that it is possible to derive an equality-related hierarchy of ‘benchmark’ distributions in the terminal period of the growth process, corresponding to various optimal budgetary allocations. The chapter shows that to assess the ‘inclusiveness’ of growth in per capita income, one could focus on absolute changes of income in each quantile (as opposed to proportionate changes).

While Chapter 3 deals with examining the inclusivity of various optimal budgetary allocations, Chapter 4 by Satya R. Chakravarty and Palash Sarkar studies a popular way to make an income distribution equitable, namely ‘effective progression’. Tax progressivity is an effective way of reducing income inequality. An effectively progressive tax structure imposes a lower tax burden on persons with lower incomes than on persons earning higher incomes. Thus, under effective progression incomes are redistributed more equally after tax. Since high inequality in a society is undesirable for many reasons, from a policy perspective redistributive impact of a progressive taxation scheme is an important concern of a social planner. Measures of tax progressivity suggested in the literature can be classified into two subgroups, local and global. While a local measure is concerned with the evaluation of a tax structure at individual income levels, a global or summary measure looks at the effect of the tax structure on the income distribution as a whole.

Often from a policy point of view it may be desirable to improve the level of effective progression without imposing any additional tax burden on the individuals. For instance, in a recent contribution, Datt, Ray, and Teh (2021) looked at the redistributive effect of the Indian tax system using the Liu (1985) and Pfahler (1984) index of effective progression for the period 2011–2018. They noted that this effect has been around 0.05 over the period. They argued that this low value of effective progression, equivalently, the low performance of the tax system in terms of effective progression, is mostly a consequence of the low average tax rate of around 9–10%, which remained unchanged over the period considered. Therefore, in order to increase the performance of effective progression by lowering the post-tax inequality, a social planner may recommend the use of higher average tax rates as an appropriate tool. If average tax rates are increased proportionally at all income levels, effective progression increases (Liu 1985).

In their previous work, the authors of this chapter worked on the connection between the local progressivity of a tax function and inequality reduction (Chakravarty and Sarkar 2022). Chapter 4 of this volume presents rigorous formulations of the four local measures, investigates their properties from different perspectives, and reviews the literature studying their connections with inequality reduction under alternative notions of inequality invariance. The authors also show how a measure of effective progression can be applied to policy evaluations.