# Chapter 3: Economic inequality and social progress[1]

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## Abstract

Inequality and its effects on societies have received increasing prominence in debates among economists and social scientists and in policy circles over the past thirty years. There are many, often interacting inequalities and different forms of inequality. Wide income and wealth inequality has harmful consequences for the economic welfare of societies, social cohesion, and other factors that intrinsically and instrumentally diminish social progress. While between-country income inequality has been falling recently, within-country inequality has been rising to varying degrees in most industrialized and many developing countries, though the experience of

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declining inequality in Latin America is a notable exception. Globalization and technological change have contributed to widening inequality in many contexts, but country-specific explanations and policies have often played a more important role. They include the role of economic conditions, levels and trends in the distribution of physical assets and human resources, the functioning and regulation of labor markets, regional and sectoral disparities, and macroeconomic, tax, transfer, and social policies that affect inequality directly or indirectly. Many of the trends in inequality are related to deep-rooted and self-reinforcing factors such as strong social stratification, well-established norms, political inequality, governance, demographic factors, and the role of social movements. National policies and, to a lesser extent, international supporting actions can have a powerful impact on inequality.

## 1. Introduction

### 1.1 Motivation and overview

The concern to explain and to justify inequalities in society goes back at least to Rousseau in the European Enlightenment, and indeed had its predecessor in the form of episodic criticisms of the distribution of goods in society in various world civilizations. Nevertheless, after a long period of relative neglect, economic inequality and its effects on societies have become increasingly prominent in debates among economists and social scientists and in policy circles over the past three decades. Among the many recent ways this has become clear are the inclusion of the reduction of inequality as a separate goal among the seventeen Sustainable Development Goals (SDGs) recently adopted by the United Nations and the much greater attention being paid to inequality in academic literature and in the policy analyses of the

International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the United Nations system, the World Bank, and other leading international organizations and financial institutions.

The focus in the 1980s and 1990s was on issues in economic inequality in industrialized countries. This was largely because of the sharply rising income inequality observed in many OECD countries beginning in the early 1980s aided by increasing availability of comparable data on income inequality. More recently, a debate in industrialized countries has revolved around inequalities in education and health. New information is also emerging on the advantages accruing to people at the top of the income and wealth distribution, which is usually poorly captured in standard household survey tools. This has extended the debate to include more about this segment of the distribution in the overall assessment of income and wealth inequality. Whereas earlier economic thinking had often involved the presumption that inequalities were relatively stable in developed countries, it came to be recognized that major shifts in such distributions are possible, and are in fact occurring.

In developing countries, the interest in and the debates on inequality issues have been long-standing and have related, for example, to Kuznets's well-known curve or inverse U hypothesis of rising and then falling inequality in the development process. Until the early 1990s, however, comparable and consistent data to assess inequality trends across countries and over time were largely lacking. As many more, more reliable, and more frequent household surveys were run in a larger number of countries, the picture changed dramatically, allowing detailed assessments of trends in inequality for the first time. Analyses thus began to reveal that within-country income inequality has been widening in many parts of the developing world especially since the 1980s. The 1990s and 2000s saw the emergence of a debate on global income

inequality, which is related to both inequality within and inequality between countries. Similarly, supported by the availability of more data, growing attention is being paid to measuring inequality in other dimensions of well-being, such as education, health, and access to water, sanitation, and adequate housing.

This chapter surveys the literature in economics and the social sciences on inequality over the past three decades. While it includes a brief discussion on global inequality, the chapter focuses mainly on inequality within countries. Inequality between countries, especially in income, is principally an issue of differences in economic growth rates across countries, a subject covered in detail in Chapter 4.

The chapter discusses inequality in many dimensions, but a greater emphasis is inevitably placed on economic (and in particular income) inequality, simply because there is more information on this dimension, and much of the literature has dealt with it. The chapter also dwells on measures of the trends in and determinants of inequality, offers a detailed examination of the impact of inequality on the well-being of people now and in the future and, therefore, of the effect of inequality on social progress.

### 1.2 Summary of the main findings

Much of the literature has focused on economic inequality, usually measured through income, but there are many dimensions of inequality. Often interacting, these include inequality in freedoms, opportunities, capabilities, such as good health, education, or social integration, political power, and social standing. One might also distinguish between interhousehold and intrahousehold inequality by, for example, age and gender, and between vertical inequality (among individuals or households) and horizontal inequality (among social groups). One should also make a distinction between static and intertemporal assessments of inequality and address

the issue of mobility. One should differentiate between unidimensional and multidimensional measures of inequality, objective versus subjective measures, absolute versus relative inequality, inequality versus polarization, and various indicators of inequality that emphasize the various dimensions of inequality. Much of the heterogeneity in findings in the literature relate to different concepts and dimensions.

### 1.2.1 Why economic inequality matters

Wide income and wealth inequality retards social progress intrinsically and instrumentally by inhibiting improvements in welfare and the promotion of social cohesion. While some social and economic differentiation is tolerable and even desirable, substantial inequality in resources, opportunities, or capabilities runs counter to most theories of justice that view such inequalities as inherently unfair. In addition, a wide inequality gap reduces overall well-being, is perceived to be problematic by a vast majority of societies, is a particular burden on the well-being of the poor, and is associated with lower intergenerational mobility. Instrumentally, wide economic inequality increases poverty, lowers the impact of economic growth on poverty reduction, affects behavior that can trap poor people in poverty. and promotes social conflict, disaffection, and protest. Economic inequalities often promote social and political inequality and vice versa. Wide economic inequality tends to lead to large inequalities in health and education and is associated with lower subsequent economic growth. There is, however, no consensus or robust results on the impact of income redistribution on economic growth.

### 1.2.2 Trends in inequality

Most data suggest that between-country inequality has narrowed somewhat since the 1980s. Meanwhile, within-country income inequality has been widening in many countries since

the 1980s and now contributes a significantly larger share of global inequality. Since the late 1990s, trends in within-country income inequality have been more heterogeneous. In Asia and in transition countries, the wide gaps have tended to stabilize or are widening more slowly, such as in South Asia. In Latin America, the gaps have narrowed from substantial levels. In Africa, the trends differ greatly by country. In OECD countries, the changes in inequality have generally been smaller since 2000 than before. The findings on the nonincome dimensions of inequality point generally to narrower inequality, narrowing global inequality in health care and education particularly since about 2005, and substantial heterogeneity in the trends in within-country inequality, often related to the average gaps and the uneven distribution of achievements in health care and education.

There is considerable uncertainty and debate about the findings on the trends in inequality. This is associated partly with differences in the definitions of inequality, but also with poor data quality, lack of comparable data, and the irregular, incomplete, and inconsistent collection of data. Data on the top and bottom of the distribution and on some forms of income and wealth are often sparse. Such data gaps exist in all countries, but are especially severe in developing countries.

### 1.2.3 Causes of inequality change

The key drivers of trends in inequality between and within countries and groups can be distinguished into two kinds: deep-seated causes and more immediate determinants. The drivers and determinants are often country-specific. This suggests that no overarching trend such as globalization or technological change accounts for all aspects of the dynamics of inequality and that country contexts, policies, and institutions matter. In OECD countries, increases in inequality gaps are immediately related to a sharply widening earnings distribution, that is, the

earnings and employment prospects of poorly educated people, particularly of men, are stagnating or diminishing, while the earnings and employment prospects at the top of the education and income distribution are burgeoning. Deeper causes are related to skill-biased technological change, the swelling trade in labor-intensive manufactured products with emerging countries, the rise in the incomes of top earners in the expanding financial sector, the declining redistributive role of the state, and labor market policies, especially on unionization, the minimum wage, and low-wage sectors. Variations in the importance of these factors help explain the substantial differences in the trends in inequality across OECD countries. In developing countries, inequality trends are affected by the earnings distribution of employees, but also by differences in inequality across regions and between rural and urban areas. Greater trade with rich countries has not met expectations by narrowing inequality, but has often served to widen inequality. This outcome arises because of the regional concentration of export-oriented industries and the growing skill-intensity of trade that are associated with outsourcing and the emergence of new links in global value chains. In addition, education, health care, and fiscal policies in developing countries shaped the widening inequality in the 1980s and early 1990s, decades that were characterized by liberalization and structural adjustment policies. The substantial narrowing in inequality in Latin America more recently has been caused by positive economic conditions and favorable policies on taxes and fiscal redistribution, labor markets, and social protection.

Many of the drivers of the trends in inequality are deep-rooted, change only slowly, and therefore reproduce themselves. This reproduction of inequality leads to substantial path dependency in inequality, aided by entrenched social stratification that causes persistent inequalities across population groups, the influence of social movements, long-standing norms

and attitudes affecting the degree in redistribution, the strong link between economic and political inequality, and demographic dynamics.

### 1.2.4 Policy and politics

Global economic forces, such as expanding trade, technological change, capital flows, and migration, affect inequality. Domestic policies, institutions, and circumstances play, however, a particularly important role. National policy agendas aimed at addressing inequality need to closely reflect local circumstances and the nature and dynamics of inequality. As recent trends in inequality in Latin America or the heterogeneity in trends among OECD countries suggest, policy can have a substantial influence on inequality.

Policies focusing on inequality can be grouped into (1) policies to improve the conditions among the poor, the vulnerable, and the marginalized; (2) policies that promote the growth and sustainability of a strong middle class; and (3) policies that seek to curb the excessive concentration of income and wealth at the top. Among the first group, relevant policies should concentrate on building physical and human assets among the poor through, for example, land reform and pro-poor education policies; enhancing economic opportunities through, for instance, better access to markets, more progressive tax-expenditure systems, and cash transfer programs to cope with shocks; and promoting social inclusion through, for example, antidiscrimination policies, legal reforms, and improved access among disadvantaged groups to the courts and the legal system.

Among the second group, policies should focus on the middle class by promoting labor-intensive growth, fostering competition, favoring micro and small enterprises, addressing shocks through universal access to social protection, and enhancing employment and a living wage.

Policies in the third group should focus on the top of the distribution by supporting greater progressivity in the tax system and in inheritance taxes, addressing tax avoidance and evasion, and establishing codes of practice to limit pay raises at the top of the distribution.

Macroeconomic policies and appropriate international action can play a supporting role. Macroeconomic policies aimed at limiting inequality should (1) involve the introduction of measures to reduce the risk of exogenous shocks such as through the regulation of portfolio capital flows and banking and fiscal rules; (2) if the shock cannot be avoided, facilitate adjustments through, for instance, countercyclical fiscal and monetary policies; and (3) minimize income losses among the poor during adjustment through appropriate safety net schemes. Macroeconomic and fiscal policies can also expand the revenue base available for redistribution, especially in countries with low ratios of tax to gross domestic product (GDP), for example, through resource taxes and more progressive income and consumption taxes.

The scope for international policies that influence within-country inequality is generally more limited. A more open international trade regime, or more generous policies on aid, migration, and intellectual property are likely to affect economic growth more than inequality. Nonetheless, international cooperation can support countries in designing and implementing pro-poor policies. It could also help narrow inequality by focusing on combating tax avoidance and evasion by wealthy individuals and multinational corporations, controlling illicit financial flows, regulating financial markets, and favoring more orderly and less costly international migration regimes.

The potential for implementing policies to narrow inequality in countries depends crucially on political economy issues within countries, and these are affected by the size and

voice of the middle class, the power and incentives available to entrenched elites, the nature of political alliances, and the role of popular and social movements.

## 2. Concepts and measures of inequality

### 2.1 Inequality of what?

In his influential work *Inequality Reexamined,* Amartya Sen (1992) argues that equality can be measured on many different dimensions which he terms "focal variables". Human beings differ in terms of their characteristics (e.g. gender, race) and in terms of their endowments, ownership etc. Given these differences, privileging equality in one domain may result in tolerating inequality in another, e.g. equality in incomes may result in inequality in well-being given that different individuals may have different needs. In light of these considerations, Sen argues persuasively that, the question of what the focal variable should be is important. He then proceeds to evaluate different philosophical traditions (utilitarianism, Rawlsian justice) to make a case for focusing on the capabilities of individuals to achieve desirable functionings. Chapter 2 (Section 3) describes the capability approach in greater detail, arguing that it provides an objective approach to conceptualize well-being, unrelated to the states of mind of individuals.

In practice, the choice of focal variables has been dictated by several considerations, including the imperatives of a particular context/policy, availability of data and ease of measurement. Based on these considerations, a substantial focus in the literature has been placed on inequality of incomes or expenditures among individuals and households. More recently wealth has emerged as an important focus variable, and studies have attempted to measure wealth inequality at both the individual and household levels (e.g. Davies and Shorrocks 2000; Jayadev et al. 2007).

Two other inequalities that have received some attention have been in the domains of education and health. Although techniques and concepts used in the measurement of income inequality have been applied here, the issues, nature of the data, limitations of data are different (see e.g. O'Donnell et al. (2008) on health, and Ferreira and Gignoux (2011a) on education).

One domain that has received considerable attention in recent times is that of opportunities. Chapter 2 (Section 4) discusses equality of opportunity as a part of a broader discussion of distributive justice. In the context of economic inequality, there has been substantial interest in the nature and extent of inequality of opportunity, particularly in the space of incomes, i.e. inequality of opportunity as a driver of (inequality in) incomes and earnings. The main inspiration for this agenda has been the work of John Roemer (e.g. 1998, 2008). Broadly speaking, Roemer has argued that what individuals achieve depends upon two sets of factors: those beyond their control (*circumstances*), and their *efforts*. It is unjust to hold individuals responsible for factors beyond their control (i.e. their circumstances) and societies should therefore try to reduce these disadvantages to the extent possible (or compensate individuals for suffering from such inequalities in circumstances). As Chapter 2 (section4) points out, this could be categorized as "responsibility-sensitive egalitarianism" or "luck egalitarianism". Roemer's formulation is simple, intuitively appealing, and (most importantly) amenable to empirical analysis. As a result, a large and growing body of literature has emerged that has tried to estimate the inequality of opportunity in various countries (e.g. de Barros et al. 2009; Checchi and Perragine 2010; Ferreira and Gignoux 2011b; Singh 2011). Some of the circumstance variables that have been identified are parental education, caste, gender, religion and rural-urban location. Both parametric (regression-based) and non-parametric approaches have been suggested (see Singh (2011) and Kanbur and Wagstaff (2014) for details).

Even as the empirical literature on inequality of opportunity is gaining ground, there are serious critiques and unresolved philosophical questions. Chapter 2 (Section 4) presents a discussion of some of these, e.g. the role of preferences and the idea that the distinction between efforts and circumstances poses a threat to self-esteem and solidarity. Kanbur and Wagstaff (2014) present a discussion of these issues. Briefly put, some of these concern the difficulties in separating justifiable and unjustifiable sources of inequality, the treatment of luck, accounting for talent, and inequality of opportunity of children. To take one example, studies hold people responsible for their luck. This is problematic because one has to distinguish between "brute luck" (e.g. the case of someone who is involved in a road accident for no fault of his/her own) and "option luck" (e.g. the loss in the stock market to a calculating investor) – an argument can be made that it is unfair to treat both of these in a similar manner. Moreover, the treatment of absolute poverty needs to be addressed better – it is morally reasonable to argue that the concerns of the truly destitute need to be addressed *even if* their destitution is a result of their actions and/or risks that they have taken. There are also questions of how to interpret differences in information access or cognitive limitations that might affect outcomes and might erroneously be considered effort.

Despite the above limitations, the agenda of inequality of opportunity is promising and has the potential for influencing policies that promote equity. Circumstance variables could include (and have included) membership of groups, and in this sense, the literature on inequality of opportunity has shed light on differences among groups. However, philosophically, and to a large extent in its empirical application, the thrust of this literature has been on individuals. This is also true of the welfare economics tradition inspired by Sen's capability approach. The question of group-based, or horizontal, inequality is addressed in section 2.3 below.

## 2.2 National inequality, global inequality, regional/local inequality

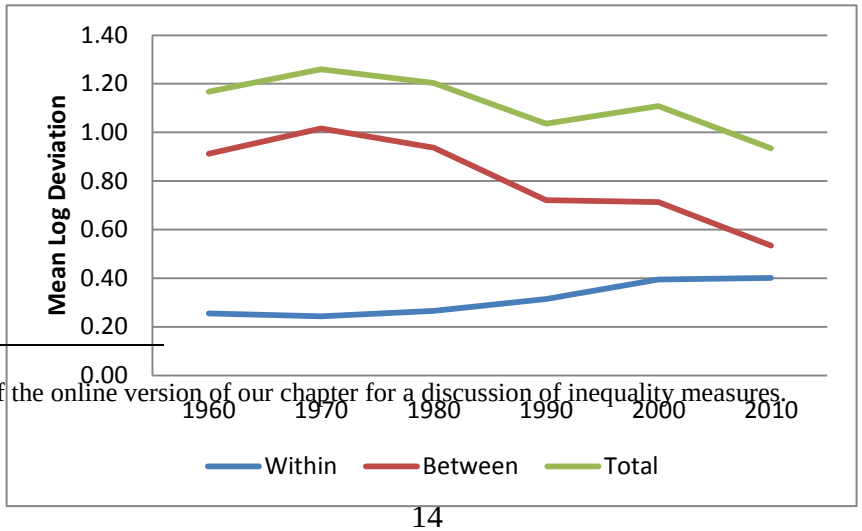
The frame of reference matters greatly for measurement, the assessment of the relevance of inequality, and related policy issues. Inequality in whichever dimension (e.g. income, wealth, education, health, etc.) can be studied in a very local context, within a small geographic area, a particular group of people, or even within households. At the other extreme, one can study global inequality. For people's well-being, behavior, and sense of equal treatment, local inequality may matter more than global inequality; but improved access to information may increase the relevance of national and global inequality for one's own assessment of well-being (e.g. Lohmann, 2015). For much of policy-making which tends to be done at the national level within-country inequality is of particular importance. Moreover, to assess perceptions of inequality, it is often important to discern the relevant reference group that people use for comparisons which may differ according to context (Boyce et al. 2010; Stutzer, 2004).

When considering global inequality, Milanovic's (2005) influential classification into three types of global inequality is very useful. The first type refers to inequality between countries, treating each country as a single, equal-weighted observation. Such an analysis is useful to study inequalities in living standards across countries, differentials in economic power, and international inequality from a policy perspective where countries are usually the unit of observation and action (e.g. at UN fora). From a policy perspective, the only way to reduce global inequality using this concept in, say, the income dimension, is for the poorer countries of the world to grow faster than richer ones, so essentially this is an issue of differential growth rates which is taken up in detail in Chapter 4.

The second measure of global inequality weights the mean achievement of each country (e.g. per capita income) by population and then considers global inequality in this population-

weighted terms. This measure more accurately reflects global inequality since now each person receives the same weight in the assessment of inequality but it still ignores within country inequality. The third measure addresses this last point and considers inequality between world citizens. Such an approach closely aligns with cosmopolitan positions on global justice. However, on its own, it is a statistic that is hard to interpret and from which to derive clear policy conclusions as it reflects inequality within countries as well as between countries, and gives more weight to populous countries. It is therefore useful to decompose global inequality into within and between country inequality; some of the inequality measures allow such decompositions.[5] An important and robust empirical finding on measuring global inequality in this way has been that over the past 30 years the contribution of between-country inequality to global inequality, while still the larger component, has been falling while the contribution of within-country inequality has been rising (e.g. Bourguignon, 2015; Klasen et al. 2016). See, for example, Figure 3.1 below, based on data from the Global Consumption and Income Project; analyses in Bourguignon (2015), based on partly different data and methods, confirm these findings.

**Figure 3.1: Within and Between Country Income Inequality of Global Inequality**




[5] See the appendix of the online version of our chapter for a discussion of inequality measures.

Source: *Global Income and Consumption Database.*

### 2.3 Horizontal versus vertical inequality

Horizontal inequality refers to inequality among groups, e.g. ethnic groups or race groups. This has to be contrasted with vertical inequality which concerns inequality among individuals or households (Stewart 2010). Horizontal inequality has been relatively under-researched and neglected. Severe inequalities among groups threaten social stability and can result in violent conflict and civil war. Groups may also be important actors and favoring one's own group may. Moreover, individuals belonging to disadvantaged groups may advance their own well-being and the well-being of the society in a suboptimal manner. Also, it may be easier to address deep social problems (e.g. unemployment, poverty) by focusing upon groups which carry a disproportionate burden of these problems. An important group-based inequality is inequality between men and women (Klasen, 2007). It differs from other group-based inequalities in that the two groups typically live together and share resources in households, while groups based on ethnicity, caste, religion, or region often inhabit different households. Thus *intra*-household inequality between males and females is an important indicator of this type of group-based inequality, while *inter*-household inequality between other groups such as ethnicity, race, caste, religion or region capture most of the group-based inequality.

While these are indirect reasons for considering groups, Akerlof and Kranton (2000) and others have argued that group identity is important for individuals and directly affects them. Giving serious consideration to the welfare of disadvantaged groups could, therefore, enhance the welfare of individuals belonging to them. At the same time, all societies are diverse: people have many identities and can therefore belong to many different groups. But the illusion of singularity that constrains individual choices and assumes that any person belongs to a single collectivity that fuels an overarching, all-encompassing identity, by placing a rigid line of segregation (Sen, 2006), combined with severe inequality among such rigidly defined groups can create conditions for conflict.

Lastly, the study of horizontal inequalities has close linkages to inequality of opportunities. Often 'circumstances' that cause inequality of opportunities relate to group membership (e.g. ethnicity, race, gender) so that horizontal inequality is a form of inequality of opportunities if circumstances are defined in such a way.

The measurement and conceptualization of horizontal inequality raises several complications since group membership could be fluid and inequality among groups (like among individuals and households) could exist on multiple dimensions. While the literature has acknowledged the former issue, it has taken the group definitions in a particular context as given. Stewart (2010) identifies economic, social, political and cultural status as the relevant broad dimensions. Each dimension in turn comprises of several elements, e.g. economic: asset ownership; social: education; political: control over government; and cultural status: recognition of cultural practices. For empirical purposes, it has been suggested (Stewart 2002) that it is useful to arrive at an index for each element/dimension, but not aggregate over the elements. This is because the differences across elements may be interesting and have consequences, e.g. a

situation of *consistency* where one group is uniformly disadvantaged could be different from one where it is disadvantaged on only some dimensions. It is also worth pointing out that it is not just "objective" horizontal inequalities that matter – perceptions play an important role too.

The empirical literature examining the impact of horizontal inequalities has used two different methodologies: case studies (Stewart ,2008) and statistical/econometric analysis within and across countries (e.g. Østby 2008, Wimmer et al. 2009, Brown 2010, Mancini 2008, Motiram and Sarma 2014b). The latter studies suffer from severe data limitations. Stewart (2010) summarizes the broad conclusion that emerges from this agenda that horizontal inequalities "increase the risk of violent conflict, especially when they are consistent in the economic, social, political and cultural status spheres."

### 2.4 Individual versus household-based inequality

(Income) inequality (and income poverty) is usually studied at the level of households. This choice is largely dictated by the available data, which measures total resources (income or consumption) a household has at its disposal and then only adjusts these total resources by household size or some equivalence scales which take into account different needs of members (e.g. children need fewer resources than adults) and economies of scale within the household (e.g. Buhmann et al. 1988). The construction of appropriate scales is controversial, can affect levels and trends of inequality, and there is no consensus on the right scales (Deaton and Zaidi, 2002), although some scales are quite commonly used.[6] An important implicit assumption of these household-based analyses is that distribution within households is equal (or according to

[6] Common scales used are the modified OECD scales (which give a weight of 1 to the first adult, 0.5 to all other adults, and 0.3 to children below 16) or the LIS scales which use the square root of household size. In developing countries, different scales tend to be used, see Deaton and Zaidi (2002).

needs in the case of an equivalence scale). To the extent that the distribution of resources within households is unequal, this will underestimate inequality and poverty (Haddad and Kanbur, 1990). In the income/consumption dimension, it is very difficult to move to an individual assessment as incomes are shared within households and a considerable share of consumption expenditures is used to finance household-specific public goods (e.g. housing, durable goods, utilities) which cannot be easily ascribed to individual members (Klasen and Lahoti, 2016). Some recent attempts have been made to study intra-household resource allocation by gender or other groups, but they usually rely on strong assumptions to identify allocation rules (e.g. Dunbar, Lewbel, and Pendakur, 2013; Chiappori and Meghir, 2015) As a result, it is very difficult to discern the role of gender inequality or inequality between age groups on aggregate income poverty and inequality, as the intrahousehold dimension is neglected. Using non-income measures, however, there is more scope for an individual assessment (Klasen and Lahoti, 2016).

Assessments of wage inequality are often based on individual data. The link between levels and trends in wage, earnings, and overall household income inequality is not as close as one might expect since it strongly depends on how earners are distributed across households which, in turn, is affected by the distribution of unemployment or of female economic participation across the income distribution as well as marriage and household formation patterns (e.g. Gottschalk and Danziger, 2005).

### 2.5 Functional inequality

Another way to study inequality (especially income inequality) is to link it to the distribution of production factors and their returns. Since capital (including land assets) and labor (including human capital) are the two factors of production, the share of incomes accruing to capital and labor can also be one way to describe inequality. The relationship between the

capital and labor shares and vertical inequality is close but far from perfect. For example, Piketty (2013) shows that the capital share has been rising in many countries but also that the labor earnings of some individuals (e.g. superstars, top earners in finance, and CEOs) have also risen and both have contributed to increased income inequality among households. Measuring these shares is not easy, particularly in developing countries where self-employment in agricultural and the informal sector employs a large share of the population, and income from self-employment combines capital income (from land and productive assets) with labor income (Trapp, 2015).

### 2.6 Uni-dimensional versus multidimensional inequality

Most of the standard literature on welfare or inequality focuses on one dimension (often income or consumption). As also discussed in chapter 2.6, in many conceptions of well-being, including for example Sen's capability approach (Sen, 1998), well-being itself is, however, seen as a multidimensional concept that cannot easily be reduced to a single dimension (or index). For example, the capabilities to be educated, healthy, and socially integrated, may all be very valuable but cannot be reduced to one dimension (as prices or other weights cannot easily be assigned to them). If those capabilities are treated as the ultimate well-being outcomes, income will only be a highly imperfect proxy to capture these capabilities, related to the inherent heterogeneity of humans in their ability to translate incomes into capabilities, and the externality and public good aspects of health and education (where provision of quality health and education services depends more on public action than private incomes, Drèze and Sen, 1989).

Also, the overlapping disadvantage of people suffering deprivations in several dimensions can be of particular interest as these might point to more structural and deep-seated inequalities and may also relate to horizontal inequality. Studying multidimensional inequality

(or multidimensional poverty) might be a way to uncover those overlapping disadvantages (and advantages, see Ferreira and Lugo, 2012).

When it comes to the measurement of multidimensional inequality, however, a number of complex conceptual and empirical difficulties arise (e.g. Aaberge and Brandolini, 2014). They relate, among others, to whether different well-being dimensions can be considered as substitutes or complements, whether transfers of compensation between dimensions is possible, whether one should first measure inequality within a dimension across people and then aggregate across dimensions, or aggregate dimensions within people and then aggregate across people, and whether one has continuous or discrete variables at one's disposal. These difficulties arise in addition to the 'usual' questions in multidimensional well-being measurement, such as the choice of dimensions and their relative weights (e.g. Aaberge and Brandolini, 2014; Bosmans et al. 2015, Mueller and Trannoy, 2012). As a result, there is no consensus to date on appropriate summary measures of multidimensional inequality.

It is, of course, possible to study multidimensional inequality without such a summary measure. On the one hand, one can rely on a dashboard approach and study inequality in each dimension separately using well-known uni-dimensional inequality measures (see Ravallion, 2011). While such an assessment provides a more complete assessment of inequality than reliance on a single dimension, such an approach does not allow for a complete ordering or ranking of multidimensional inequality of the units considered (e.g. groups, countries); nor does it say anything about overlapping disadvantages. One approach to address this problem are dominance approaches where it is studied whether one multidimensional distribution dominates another one, i.e. is certainly more unequal based on the assumption of the dominance criteria. To facilitate such comparisons, compensation and transfers can be conceptualized to help compare

multidimensional distributions (e.g. Aaberge and Brandolini, 2014). Another approach is to use standard inequality measures, dimension by dimension, and then aggregate them. An example is the Inequality-Adjusted Human Development Index (UNDP, 2010), which adjusts achievements in the three human development dimensions (education, health, incomes) by a penalty for inequality within these dimensions. The gap between the HDI, which measures average achievements, and the IHDI, can then be seen as a measure of multidimensional inequality. While this nicely illustrates the extent of inequality within dimensions, it cannot say anything about overlapping disadvantages suffered by individuals in these dimensions (because the dimensions are considered separate). An alternative proposal has been by Harttgen and Klasen (2012) to first create an HDI at the household level and then study inequality in that HDI across people (and across countries). There, overlapping disadvantages are explicitly considered, but there are serious data issues and the aggregation of overlapping disadvantage across dimensions is based on a range of debatable normative assumptions.

To conclude, the literature on multidimensional inequality is still in its infancy. Clearly studying multidimensional inequality and overlapping disadvantages is important but the best ways to do this are still being debated.

### 2.7 Income versus wealth inequality

Wealth data are collected less frequently than income in household surveys and there are difficult measurement issues. For example, wealth can include pension wealth in a public or private pension system which depends on complex pension rules (and may be uncertain), it can include wealth in capital accumulating life insurances, it can include assets that are difficult to value due to absence of liquid markets for them (e.g. shares in privately-held companies or housing in rural areas of poor countries), among many other issues. Also, since many

households have no or even negative wealth, standard inequality measures that require positive incomes for all (such as the Theil measure or mean log deviation) cannot be used. As a result, most empirical analyses, especially those comparing inequality across space and time, focus on income inequality.

But this perspective is limiting in several ways. Wealth allows households to smooth over temporary shocks, households with wealth can use that wealth as collateral for credit for investments, and households can draw on income streams from their wealth as a long-term source of income. In fact, income streams from wealth form a large part of incomes of the richest households in advanced countries (Alvaredo et al. 2013, Piketty, 2014). Wealth inequality is everywhere much more unequal than income inequality. In fact, in most countries, the poorest 60% of the population own little wealth at all (and many may be in debt), and most wealth is concentrated in the top decile (and sometimes even the top percentile holds the majority of wealth, Alvaredo et al. 2013). Also across countries, most of the world's wealth is concentrated among the very rich in rich (and some emerging) countries while many poor countries have only a tiny share of global wealth at their disposal (Davies et al. 2008). Thus, it is important to consider wealth inequality as an important driver of income inequality, and policies that reduce wealth inequality (such as inheritance taxes or taxes on capital income, or direct wealth taxes) are likely to affect income inequality.

### 2.8 Absolute versus relative inequality

Relative inequality is the most commonly used notion of inequality. Many studies of income inequality use the relative Gini coefficient, usually without the "relative" qualifier. Measures of relative inequality satisfy the property of "scale invariance" wherein inequality is unaffected if the distribution is scaled by the same non-zero factor; i.e. the measure is unitless.

In two seminal articles, Kolm (1976 a, b) argued that this convenience is obtained at a cost: "convenience could not be an alibi for endorsing justice". To illustrate: When all the incomes double, relative inequality stays the same even though the absolute difference between the incomes of the rich and the poor increases. Kolm thus characterized relative measures as "rightist" and contrasted them with "leftist" measures which satisfy the property that inequality is unaffected if all the incomes increase by the same absolute amount. Kolm argued that in his experience, this property (which we can refer to as "translation invariance") conforms to the notions that people have about inequality. An example of an absolute measure is the Absolute Gini, which is the Relative Gini multiplied by the mean. Is it possible to arrive at a trade-off between convenience and ethics? "Intermediate" or "Centrist" measures strive to do this by increasing when all the incomes are scaled up by the same factor, and decreasing when all the incomes increase by the same absolute amount.[7]

Studies that have used measures other than relative ones have been sparse. Subramanian and Jayaraj (2013) examine inequality in consumption and find that, using relative measures, increases in consumption inequality in India since the 1990s have been modest. However, both intermediate and absolute measures show sharp increases. Atkinson and Brandolini (2010) examine absolute inequality in the context of the world distribution of income. Bosmans et al. (2011) use absolute, relative and intermediate perspectives to analyze world inequality and argue that the choice of perspective matters.

[7] An example is the Intermediate Gini, which is the product of the Relative and Absolute Gini. This measure obeys "unit consistency", which ensures that two income distributions are ranked in the same manner irrespective of the units, i.e. the ranking of two distributions is unaffected if they are scaled by the same non-zero factor, e.g. which is seen as desirably. See Zheng (2006) Subramanian (2013), Subramanian and Jayaraj (2013) for some more details.

Relative and absolute approaches also appear when studying the distributional impact of growth or 'pro-poor growth' (Chen and Ravallion, 2003, Klasen 2008, Grosse et al. 2008). If the income growth rate of poorer groups exceeds that of the non-poor, relative inequality will fall, but absolute inequality will often still increase as the absolute increments of the poor are smaller than those of the non-poor. Related to this, Grosse et al. (2008) and Klasen (2008) argue that considering absolute inequality is particularly appropriate for non-income dimensions such as education or health where absolute increments are a much more commonly accepted metric than proportionate changes.

### 2.9 Inequality versus polarization

Over the past two decades, a literature has emerged that has conceptualized the phenomenon of "polarization," which is broadly: "the appearance (or disappearance) of groups in a distribution" (Chakravarty, 2009, p. 105). Several measures have been proposed and some scholars have argued that these are more closely linked to conflict and other social ills than measures of inequality. An old idea that can be traced back to Aristotle (Motiram and Sarma 2014b) is that societies with a strong middle tend to prosper, be stable, and are less prone to conflict. Measures of bipolarization (e.g. Foster and Wolfson 1994; Wolfson 1994; Wang and Tsui 2000) are motivated by this idea. They conceptualize the middle in terms of the median and divide the population into groups below and above the median and measure the distance between these groups. At an intuitive level, one can see the connection of this with the formation of poles on either side of the median. Also, while a progressive transfer decreases inequality, it could increase polarization.

Distinct from the idea of bipolarization that artificially forms groups out of an existing distribution, Esteban and Ray (1993) consider a situation where there are several identifiable,

pre-existing income groups. Individuals belonging to a particular group identify with one another and are alienated from those belonging to the other groups. The effective antagonism among individuals depends upon identification and alienation and Esteban and Ray propose the sum of all effective antagonisms in a society as an index of polarization. Duclos et al. (2004) extend this analysis to a continuous income distribution where income groups are identified endogenously. While the above measures deal with one dimension (income), Zhang and Kanbur (2001) consider polarization in a context where individuals can be distinguished on two dimensions – income and non-income group membership. They decompose overall income inequality into two components: inequality between non-income groups and inequality within non-income groups, and argue that polarization can be measured by considering the ratio of the former to the latter. Such multidimensional polarization indices are also a way of measuring horizontal inequality (Stewart 2002).

Do the polarization measures provide different results and insights compared to inequality measures? The evidence on this question is mixed. Zhang and Kanbur (2001) use data from China during 1983-95 to conclude that they do not. Using their measure, they show that rural-urban polarization is quite high, whereas inland-coastal polarization is low, but rising. Motiram and Sarma (2014b) use consumption data from India to find that at the all-India level, polarization and inequality measures show similar increasing trends since early 1990s. However, state-level comparisons and trends display some differences. They find that group-based polarization has increased on many fronts: state, geographic regions, and rural-urban. Duclos et al. (2004) use data from the Luxembourg Income Study for 21 European countries to demonstrate that inequality and polarization rankings differ. Ravallion and Chen (1997) consider data from developing and transition countries and find close correspondence.

## 2.10 Subjective measures: perceptions of inequality and mobility

Most of the literature is focused on objective, quantifiable measures of inequality. But there are, of course, other ways to consider inequality, including subjective measures. Three different literatures can be subsumed under this heading. The first considers subjective outcome indicators such as 'happiness' or 'life satisfaction' which has been used as an important alternative indicator of well-being and is also discussed in chapter 2, 3.1.2. While there is a very large and mature literature concerned with measuring the levels and determinants of happiness and life satisfaction, inequality in happiness has been much less studied. This is partly related to data issues as happiness and life satisfaction is usually measured on a 4, 5, or 10 point Likert scale from which it is no easy to derive valid, credible, and comparable inequality measures. Kalmijn and Veenhoven (2005) recommend using the standard deviation as an inequality measure. When using a 10-point scale for life satisfaction, the measured inequality in life satisfaction is quite small (as to be expected) and generally falls with high mean levels of life satisfaction (Ott, 2005). Given the conceptual and measurement challenges, it is not clear what robust conclusions emerge from this rather small literature on inequality in subjective well-being.

A second literature uses subjective perceptions to derive objective metrics. Examples of this are the formulation of “subjective poverty lines” in which households are asked what level of income they would require to not be poor (e.g. Pradhan and Ravallion, 2000), or surveys that ask households to subjectively place themselves in the income distribution. Such measures can be a useful complement to objective inequality measures and yield interesting insights. For example, as shown by Cruces et al. (2013), poor people tend to overestimate their rank in the income distribution while rich people underestimate it, which is related to their perceptions being

based on comparisons with relatively homogeneous reference groups. As a result, subjective inequality tends to be lower than objective inequality, but the difference is not uniform and depends on circumstances (see also Engelhardt and Wagener, 2014).

A third (closely related) literature asks about people's perception of the level of income or wealth inequality and mobility in a society (irrespective of their own position) and perhaps one could use these subjective perceptions as measures of inequality. As is to be expected from the discussion above, income inequality is estimated to be much smaller than is objectively the case. This biased perception seems to be even larger for estimates of the wealth distribution (Norton and Ariely, 2011). Similarly, perceptions of social mobility tend to be higher than actual social mobility, and there are important international differences, with people in the US believing that mobility is substantially larger than in Europe (e.g. Alesina and Glaeser, 2004), even though it appears that mobility is lower in the US than in most European countries (Corak, 2013). This literature has also shown, theoretically and empirically, that perceptions of inequality and of mobility affect preferences for redistribution (e.g. Cruces et al. 2013; Engelhardt and Wagner, 2014; Benabou and Ok, 2001).

All three literatures show that subjective assessment of inequality (and mobility) are generally a poor proxy for objective measures of inequality, and are affected by various systematic biases. Thus, as short-cut proxies for inequality or mobility, they are of limited use. Instead, however, these subjective measures provide important complementary information that sometimes can be as important or more important for subjective assessments of well-being in societies or preferences for political or social change.

### 2.11 Static versus dynamic inequality, mobility

Most inequality analyses focus on current incomes. This does not consider dynamic issues such as shocks or life-cycle movements of incomes. Inequality in current incomes may be larger than in lifetime incomes if, for example, today's poor include poor students who will ultimately earn much more over their lifetime, or include those who suffered a negative shock this year. Panel studies that study short-term income dynamics tend to find that inequality in average multiyear incomes tends to be substantially smaller than inequality in annual incomes, suggesting that shocks and/or measurement error are responsible for the higher reported static inequality at any point in time (e.g. Grimm, 2007; Woolard and Klasen, 2005; Burger, Klasen, and Zoch 2016).

More generally, we are also concerned about mobility, i.e. how individuals or groups fare over time. We might be interested in interpersonal mobility - how easy or difficult it is for individuals to move from one income or occupational group to another, or intergenerational mobility – how likely or unlikely it is for children to fall in the same group (income quantile, occupational class, educational level etc.) as their parents. Panel data or data tracking different generations is needed for understanding mobility. Given the relative paucity of such data in developing countries, the empirical literature on mobility there is sparse – two recent exceptions are Hnatovska et al. (2011) and Motiram and Singh (2012). In contrast, the literature from developed countries is richer and there are studies from several countries, e.g. Björklund and Jäntti (2000), Bowles et al. (2005), Corak (2013), Blanden et al. (2014).

Mobility is closely linked to the notion of equality of opportunity. As already discussed above, an influential view (due to Roemer, 1998) holds that individuals should not be held responsible for factors that influence their performance, but which are beyond their control. The larger the influence of such variables, labeled as circumstances, the lower is the equality of

opportunity. From this perspective, societies with low intergenerational mobility are likely to witness low equality of opportunity since parental background plays an important role in shaping the lives of the current generation.

### 2.12 Measures and Measurement Challenges

The on-line version of the chapter includes a detailed discussion of different inequality measures as well as measurement challenges and data issues associated with the measurement of inequality.

## 3. Why inequality matters

### 3.1 Introduction

A lot of the empirical literature on inequality, especially within economics, has focused on a purely economic perspective that tends to examine the relationship between economic inequality – usually proxied by income inequality – and other economic variables such as economic growth, savings, labor market performance, and the like. These relationships are important. In the analysis of the relevance of inequality, however, moving beyond an economic perspective is critical. Both in the larger social science literature and in the public discourse, inequality is considered also a moral issue linked to justice and human rights. It is also viewed as a political issue that affects the operation of political systems, and it is likewise seen as a social issue that influences social stratification. Moreover, there is interaction in the inequality across these and other spheres. For example, economic and social inequality is likely to affect political inequality, which may have repercussions on economic and social inequality. Documenting the

levels, the trends, and the interactions in this wider inequality and examining how they matter are therefore important.

It is important to also note that some inequality may be tolerable either because it is, in some ethical conception, considered acceptable, or because it leads to other beneficial outcomes. For example, one might interpret the Kuznets inverted U–shaped relationship between income inequality and economic growth – inequality initially rises along with economic growth, but then eventually falls – as an illustration of the phenomenon of tolerable or unavoidable inequality. In effect, inequality rises naturally as individuals, even those with the same initial allocation, behave differently in the implementation of investment schemes because of variations in rates of time preference and other preferences or possibly purely because of chance. This initial level of inequality may be considered tolerable. However, at a certain point, the inequality may become intolerable if it reduces economic performance, other desirable outcomes, or otherwise becomes intrinsically problematic.

### 3.2 Intrinsic concerns

To what extent is a concern about inequality mandated by a concern about social justice? Social justice has been conceived in diverse ways, including as the embodiment of a regard for procedural rights and liberties, as the absence of absolute deprivation, and as the maintenance of inequality within tolerable limits or the eradication of inequality if it is deemed intolerable. The distinction between inequality in initial endowments and inequality in final outcomes has also figured prominently in recent debates, for example, debates involving luck egalitarians, who emphasize the existence of initial or starting gate equality in relevant endowments, such as Gerald A. Cohen, Ronald Dworkin, John Rawls, John Roemer, and many others. A plausible case has also been made that one should consider all theories of social justice egalitarian in the

sense that they answer the question "equality of what?" (see section 2.1; Sen 1979). For instance, libertarian theories, such as those of Nozick (1974), equal rights are central. From such a perspective, a spotlight on inequality is always mandated because of social justice even if the specific area of inequality, the focal variable, is associated with a particular theory of social justice. In addition, the extent to which an area of inequality is problematic may depend on the specifics of the theory. For example, the difference principle advanced by Rawls famously tolerates inequality as long as it demonstrably advances a specific good, namely, the advantages of the least advantaged members of society. The perspective on social justice that calls for a focus on equality of outcomes has not been especially influential since the 1970s, but it is now gaining more attention. Anderson (1999), for instance, argues that social justice demands a felt solidarity with others not merely because of a reasoned commitment to correcting injustice, but also for evaluative and empirical purposes. This may lead to a concern with equality of outcomes as well as with equality of starting points. It seems unreasonable to be indifferent about outcomes in assessing social justice, while feeling concern for others as an integral component of the demand for social justice.

If inequality refers only to a concern about a relative relationship and not to a concern about an absolute advantage or disadvantage, then the case for disvaluing inequality within a theory of social justice becomes weaker. The two kinds of inequality are, of course, empirically linked and deeply interconnected. Inequality between the rich and the super-rich may have arisen because of the facts of birth or luck in the availability of opportunities, but, in this case, the demand for corrective action from the standpoint of social justice may be thin. The distinction between disvaluing inequality absolutely and disvaluing inequality for some other reason, including the impact on absolute advantages and disadvantages, is important (Parfit 1997).

However, in our world, relative inequalities are closely linked to low and even unacceptably low levels of absolute advantage; so attempting to separate the two is of doubtful utility.

### 3.2.1 Inequality of opportunity, capabilities, and access to primary goods

The issue of whether to focus on ex ante inequality of endowments or ex post inequality of outcomes is important in contemporary discussions. The appropriate corrective action – to attempt to equalize resource endowments or educational opportunities versus taxation and transfers, for instance – would partly depend on what is considered the appropriate focus. Another, distinct concern has been the focus on space. For instance, if one is concerned about inequality of endowments, one may confine the focus to the resources possessed by individuals, but external to individuals, or one may take a more capacious view that includes natural endowments, such as athletic ability or intelligence. Though the latter cannot be redistributed directly, their inclusion among morally relevant considerations may influence the corrective actions one undertakes in other dimensions in which such actions are feasible. Similarly, one may be concerned about all outcomes, such as health and wealth, or only some outcomes, such as wealth. The choice to focus on specific outcomes may be based on, for example, the special relevance of these outcomes to human well-being or the role of social factors versus individual decision making in determining individual outcomes.

Rawls (1971) advanced the idea of using primary goods as an index of the diverse social and individual resources relevant to an ex ante assessment of the opportunities available to a person to realize a chosen life plan. The concept of primary goods is inherently plural and extends beyond economic resources. However, it is also squarely focused on the means to achieve outcomes rather than the outcomes realized.

Sen (1992 and elsewhere) has emphasized the contrast between this Rawlsian conception and an alternate perspective, one based on capabilities, which takes account the freedom to achieve specific outcomes. One aspect of the subtlety of the capability perspective resides in the major role of freedom. The perspective is thus focused on opportunities rather than outcomes; yet, it reflects an awareness of the distinctions among outcomes by especially valuing the freedom to achieve those outcomes that the individual has reason to value. In this way, it mutes the differences between the ex ante and ex post approaches. The capability perspective also reflects an awareness of interpersonal variations in the ability to translate resources into outcomes. Whether it is morally appropriate to take account of such variations is a matter of debate.[8]

These perspectives all consider particular forms of inequality morally problematic and requiring corrective action. They differ in approach, and evaluations associated with them also differ in approach. An element of evaluative judgment is inescapable.

### 3.2.2 Inequalityand its impact on well-being

A large body of research in psychology, economics, and political science demonstrates that people are inequality averse, that is, they react negatively to the unequal distribution or allocation of resources, regardless of whether this leaves them at an advantage or a disadvantage, although they are more comfortable if they are left at an advantage (Fehr and Schmidt 1999; Loewenstein, Thompson, and Bazerman 1989). Indeed, the aversion to inequality seems to be universal (Henrich et al. 2006). People are willing to incur personal costs to reduce inequality and do so even as neutral third-party observers of inequality (Camerer and Thaler 1995; Fehr and

[8] See Pogge (2002) and Roemer (1998) for two contrasting views on this.

Fischbacher 2004; Johnson et al. 2009). In recent studies using functional magnetic resonance imaging, researchers have documented the neural activation of reward processing areas – associated with positive affect – in response to fair allocations of resources and the activation of an area associated with specific negative emotions, such as anger and disgust, in response to unfair allocations of resources (Sanfey et al. 2003; Tabibnia, Satpute, and Lieberman 2008; Tricomi et al. 2010). People's aversion to inequality may be deep-rooted, emerging at a young age. Children as young as age 7 years exhibit aversion to the unequal allocation of resources, and even 5-year-olds apparently show a preference for the egalitarian distribution of rewards (Fehr, Bernhard, and Rockenbach 2008; Gummerum et al. 2010; Kogut 2012; Sutter 2007).

The empirical literature of the effect of income inequality on subjective well-being confirms these findings. At the microlevel, income is associated with higher rates of happiness, but that the relationship is concave, suggesting that wider inequality reduces aggregate well-being (Deaton and Kahnemann 2010). This literature is somewhat less clear on whether income inequality in a society has an additional direct impact on well-being, apart from one's own position within the income distribution. While a majority of studies find such a link, others do not (Blanchflower and Oswald 2003; Ferrer-i-Carbonell and Ramos 2012; Gruen and Klasen 2013; Sanfey and Teksöz 2007). Particularly in developed and transition countries, most studies find negative effects of inequality, while in emerging and developing countries the effect is less clear.

Given that people are overwhelmingly averse to even small, inconsequential economic inequalities in the laboratory, how may one explain people's acquiescence to larger, more consequential inequalities in everyday life? One possible explanation is that people simply do not appreciate how wide the disparities are (Norton and Ariely, 2011, Norton et al. 2014,

Kiatpongsan and Norton, 2014). Nonetheless, although people tend to underestimate the amount of wealth inequality in their countries, they still prefer their countries to be more equal than they perceive them to be (Norton and Ariely 2011; Norton et al. 2014, Kiatpongsan and Norton 2014).

A second reason may be the belief in upward social mobility. According to the dominant ideology in the United States and many Western countries, people accept inequality as long as they believe that hard work pays off (Kluegel and Smith 1986). For example, in a cross-national survey of 25 countries, Shariff, Wiwad, and Aknin (2016) find a positive correlation between social mobility and acceptance of inequality. However, as demonstrated by Davidai and Gilovich (2015), people's perceptions of economic mobility may be as distorted as their perceptions of economic inequality. The mistaken belief in the broad scope of upward mobility may be an example of a general tendency to consider that institutional, judicial, and economic systems are fair (Jost and Banaji 1994). Because people need to believe that the prevailing economic system fosters a society in which individuals get what they deserve and deserve what they get, they glorify the well off as highly competent and industrious, and they vilify the poor as incompetent and lazy (Fong 2001; Mandisodza, Jost, and Unzueta 2006). Indeed, merely thinking about people's ability to choose for themselves increases their belief in personal responsibility, decreases their concern with wealth inequality, and, consequently, diminishes their support for redistributive measures (Savani and Rattan 2012; Savani, Stephens, and Markus 2011).

Underlying these beliefs about social mobility and the attribution of positive traits of the wealthy (and negative traits of the poor) is the distinction between inequality, which is uneven resource distribution, and inequity, which is resource distribution that does not offset relevant differences in ability, effort, need, and so on. People are generally averse to inequality and more

concerned about procedural justice, that is, fairness in allocation processes, than about distributional justice, the fairness of allocations (Tyler 2011). People tend to be more egalitarian toward others who are perceived to expend as much effort as they expend or even more effort, but are less egalitarian toward others who are perceived to expend less effort than they do (Cherry, Frykblom, and Shogren 2002; Hoffman et al. 1994; Oxoby and Spraggon 2008). To the extent that people perceive large wealth and income discrepancies as indicative of underlying differences in effort and competence, they are likely to accept these as relatively benign manifestations of inequity rather than unacceptable instances of inequality.

People are also less concerned about economic inequality if it appears more remote and less personal. People care more about their local relative standing than their absolute position (Frank 1985; Norton 2013). For example, the incomes of individuals relative to the incomes of others around them are better predictors of life satisfaction and physical health than the absolute incomes of these individuals (Boyce, Brown, and Moore 2010; Daly, Boyce, and Wood 2015). Likewise, people are more concerned about local inequality rather than global inequality, and they tend to apply more rigorous standards of fairness and egalitarianism within small communities than within large ones (Deutsch 1975; Pfeffer and Langton 1988). They are more likely to compare themselves with similar others and to be disturbed by inequality involving similar others as opposed to dissimilar others (Baron and Pfeffer 1994). People do not generally experience vast economic inequalities within a local context. While interactions between the rich and the poor occur routinely, they often occur in a context that favors equity over equality, such as the case of a waiter serving a wealthy patron. Only in the relatively rare cases in which inequality is locally substantial or occurs in contexts that are not associated with equity, such as

if wealth inequality is clearly linked with unequal health outcomes, might people become more resistant to ongoing economic inequality.

These concerns about the impact of inequality on well-being can also be found in the economics literature. In the utilitarian tradition, the presumption of the declining marginal utility of income, derived essentially from the declining marginal utility of each good, is strong. This is reflected in concave money-metric social welfare functions, which will, for the same mean incomes, deliver lower aggregate well-being in more unequal societies. This is a formulation of inequality aversion (Atkinson, 1970). Related arguments have been made by Dagum (1990) and Sen (1973), whereby well-being depends not only on one's own income, but also on one's rank in the income distribution. The key distinction with respect to the declining marginal utility view is that the relational aspect of inequality is emphasized in the sense that the difference in well-being to a reference group, rather than the absolute level of well-being, is particularly important.

These arguments have been incorporated, respectively, in the welfare measures of Atkinson (the 'equally distributed equivalent income') and of Sen (welfare equals mean income, multiplied by 1, minus the Gini coefficient). Empirical applications include Jenkins (1997) and Gruen and Klasen (2001, 2003, 2008, 2012, 2013) and show that the welfare penalty of inequality, using plausible ranges of inequality aversion, can be large, sometimes reducing the welfare associated with an existing unequal income distribution – such as the income distribution prevailing in Latin America today – by 50 percent or more relative to a case in which the same income was distributed equally.

Income inequality can also exert an impact on the nonincome dimensions of well-being. For example, it can affect average health and education outcomes. Thus, Pickett and Wilkinson (2015) find that income inequality leads to lower average health outcomes. Widening inequality

and the associated unemployment and social dislocation also contributed to sharply falling life expectancy during the early years of the transition in Eastern Europe and the former Soviet Union; the effects were more persistent in the latter (Cornia 2016).

### 3.2.3 The impact on power relations

Inequality may be economic, or it may be related to social differences, differences in political power or influence, or differences in cultural prestige. The various advantages and associated inequalities are distinct and may each also be tied to deep-seated differences based on gender, race, caste, or other factors. The day-to-day psychological and social experience of individual well-being or ill-being may be crucially shaped by inequalities in noneconomic dimensions. However, inequalities in these dimensions are often causally and symbolically linked to economic inequalities. The deep links make analysis of the historical background or the operation of a single dimension of advantage and disadvantage difficult.

One of the most pernicious effects of economic inequality is the impact on power relations in a society. This may take various forms. For instance, the greater influence of the privileged directly through the economic resources the privileged command and indirectly through their social status can cause institutional arrangements and policy choices to favor the interests of these people. Institutions may thus become instruments for extending and cementing inequality, leading to a vicious circle. A great deal of the literature on political economy and political sociology focuses on these connections (Mann 1986-2012; Winters 2012). For example, economic resources can be used to buy votes in elections or in legislative processes, buy the time and influence of the media or opinion makers, coerce or threaten to coerce people through economic sanctions or by commanding muscle power, and so forth (Bowles and Jayadev 2006). Such mechanisms may have predictable effects, leading, for instance, to oligarchs protecting

their wealth from taxation or to lower levels of taxation for the privileged as suggested by the median-voter theorem (Meltzer, Allan, and Richard 1981; Rodriguez 2004). There may be limits to such processes, however, especially if there are entrenched democratic institutions or active and politically mobilized groups such as a middle class pursuing their own collective projects. Economic inequality may give rise to inequality in politics, but nothing is fated.

Another, more subtle possibility is that economic privilege might become overlaid with markers of social and cultural privilege or become associated with particular traits such as supposed economic knowledge or worldliness, leading others to defer to those who are more well off. Such deference may be reflected in biases about who knows best how the world really works or about who should best command respect. Large numbers of legislators and leading politicians in many countries have great personal wealth, though this may also reflect the independence wealth provides. In a democratic age, there is also skepticism of the role of wealth in political life and an appropriate spotlight on the inappropriate influence of the relatively prosperous.

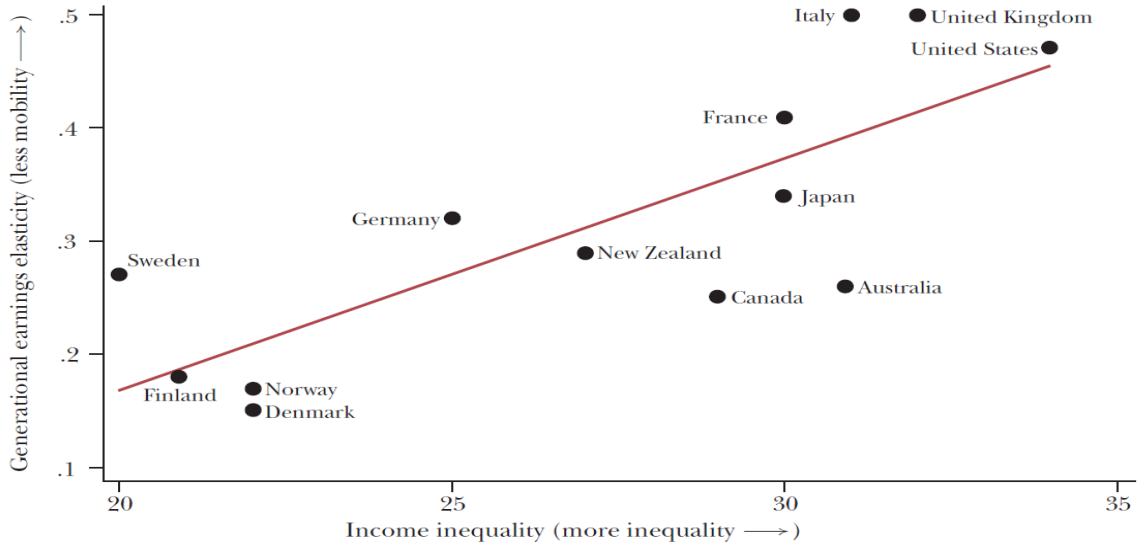
### 3.2.4 The impact on the intergenerational transmission of inequality

Inequality may be considered tolerable if people believe there is great intergenerational mobility and thus the opportunity to improve the position in the distribution. The empirical evidence, however, points to the opposite conclusion: wide inequality is associated with lower intergenerational mobility. This relationship has been popularized in the Great Gatsby Curve (Corak 2013; Krueger 2012). Figure 3.2 illustrates the relationship between intergenerational earnings mobility of fathers in the 1960s and sons in the late 1990s and inequality in disposable incomes in selected OECD countries. Clearly, more inequality is associated with less intergenerational mobility across the countries. Less data are available on other countries, but

these findings have been replicated on a larger set of countries (Corak 2013). Among the mechanisms that may account for this relationship is the ability of the more well off to invest more heavily in their offspring; conversely, the difficulties the poor face in investing in their children; an association between the greater redistributive role of the state and more state investment to promote mobility; the direct role of inheritance; capital market imperfections that make investment difficult for the poor; the ability of the more well off to help secure better employment for their children; and the greater access to networks enjoyed by the rich more generally. The relative importance of these various transmission channels has only been partially explored. It thus appears difficult empirically to justify wide inequality based on the prospects for greater intergenerational mobility.

**Figure 3.2. The Great Gatsby Curve, Selected OECD Countries, 1960s and 1990s**

*Figure 1*
**The Great Gatsby Curve: More Inequality is Associated with Less Mobility across the Generations**




*Source:* Corak 2013.

### 3.3 The instrumental role of inequality

#### 3.3.1 Impact of inequality on poverty

Inequality has a direct impact on absolute income poverty. At a given mean income and a fixed absolute poverty line, wider inequality will invariably be associated with higher poverty rates (Bourguignon 2003). Less immediately obvious is the link between inequality and the poverty impact of growth, that is, the impact of inequality on the poverty elasticity of growth. Determining this relationship is useful for policy makers because the relationship governs the extent to which the poor benefit from overall economic growth. Empirical studies generally find that the growth elasticity of poverty reduction has been quite low in sub-Saharan Africa and substantially larger in Asia (Adams 2004; Bresson 2009; Fosu 2009, 2010, 2011, 2015a; Kalwij and Verschoor 2007).

Bourguignon (2003) shows that there is a mathematical relationship linking growth, inequality levels and trends, and absolute poverty reduction. Indeed, he shows that this elasticity decreases with widening initial inequality, but increases as income rises relative to the poverty line. While these results are all derived mathematically under an assumption of a lognormal income distribution, Bourguignon also tests these results empirically and finds that they fit the data well. An important implication is that the impact of growth on absolute poverty reduction is smaller in many sub-Saharan African countries because these countries show wide initial inequality, and the ratio of mean income to the poverty line is low. So, the evidence on the small impact of growth on poverty reduction in Africa is purely mathematical, rather than a sign of policy failure, as is often lamented. Conversely, the rapid poverty reduction in Asia in recent decades is linked to the narrower initial inequality and a high ratio of mean income to the poverty line.

A weakness of the indicator of the growth elasticity of poverty reduction is that it considers percent changes, rather than percentage point changes; for example, a reduction in the poverty rate from 50 percent to 40 percent is a 20 percent reduction, but a 10 percentage point reduction. Policy makers are generally interested in the percentage point reduction. Klasen and Misselhorn (2008) therefore extend Bourguignon's work by using absolute poverty measures, or the growth semi-elasticity of poverty reduction, that is, by how many percentage points does the poverty headcount change in response to a 1 percent increase in growth? They find that higher growth rates, narrowing inequality, and narrow initial inequality lead to greater poverty reduction measured in percentage points.

### 3.3.2 The impact on economic performance

One of the most controversial effects of inequality is its impact on economic performance. Two meachnisms suggest that wider inequality can promote economic growth. The first argument is that income inequality has a favorable effect on economic growth because the rich, in neoclassical and in Keynesian models, are assumed to have a higher propensity to save than the poor. Hence, an increase in income inequality triggers higher aggregate savings, which generate higher levels of investment and economic growth (Kaldor 1955).[9]

The second argument revolves around incentives. Two aspects are of special interest here. One aspect is that inequality itself provides incentives to work hard and invest because the returns tend to be higher in such context than in a more equal setting. These greater efforts and investments increase output generally. The other aspect relates to redistribution by the state.

[9] Countering this view are scholars who worry about underconsumption and the resulting stagnation because of low and shrinking purchasing power among the majority. See, for example, Bleaney (1976) for a survey. The recent debate over secular stagnation has revived underconsumption as a potential cause of a growth slowdown. For example, see Teulings and Baldwin (2014).

Redistribution can reduce inequality, but may also affect incentives negatively through, for instance, substantial marginal taxation on labor incomes. Li and Zou (1998) provide empirical support for the above hypothesis in a political economic setting whereby more equal income distribution triggers higher income taxation. which then produces lower economic growth. This outcome is underpinned by the assumption that such taxation finances mainly public consumption rather than productive services.[10] Forbes (2000) also empirically finds that widening inequality is associated with greater economic growth in the short and medium term.

Debates focus less on the potential plausibility of these mechanisms and more on their empirical relevance. For example, few economists doubt that a marginal tax rate at close to 100 percent would negatively affect effort and that, for example, one of the problems associated with the socialist system in Eastern Europe and the former Soviet Union was that earnings were not closely tied to effort (Kornai 1992). It is less clear whether the marginal tax rates commonly observed today have this effect or whether these effects are outweighed by the countervailing benefits of less inequality (Diamond 1998; Diamond and Saez 2011). Similarly, it is largely an empirical question whether inequality promotes domestic savings because the rich may not save more than the middle class and may take their money out of the country (Ndikumana 2014; Ray 1998).

There is a large literature suggesting, conversely, that high inequality reduces economic growth. Following Voitchovsky (2009), the theoretical channels of the influence of inequality on the size of the pie, that is, income levels and income growth rates, can be broadly grouped into four depending on the different parts and aspects of the income distribution: (1) the

[10] This theory is, however, at variance with the findings of Alesina and Rodrik (1994), who assume that the taxation finances mainly productive services by the government.

circumstances of the poor, (2) the overall distance between individuals, (3) wealth concentration, and (4) the size and circumstances of the middle class.[11]

The poor face credit constraints, which leads to forgone investment opportunities and, hence, forgone economic growth (Birdsall 2006; Ghatak and Jiang 2002). Credit constraints among the poor are particularly detrimental if they hinder investments in education, which may lead to long-term forgone economic opportunities and to intergenerational poverty traps (Galor and Zeira 1993; Grossmann 2008; Piketty 1997).

If earnings are low at the bottom end of the distribution, the opportunity costs of having children tend to be low, which can lead to higher fertility among the poor, as well as lower investment in each child, which hurts the poor but also overall economic growth. Similar to most discourses on the circumstances of the poor, the self-reinforcing mechanism of the large unskilled labor force squeezes wages at the low end of the distribution, which lowers the opportunity costs of children among the unskilled even more (Kremer and Chen 2002). The empirical analyses of Barro (2000), de la Croix and Doepke (2003), and Perotti (1996) support the fertility channel of the impact of inequality on growth.

Generally, greater socioeconomic polarization has been shown to lead to wider income and wealth inequality (Mogues and Carter 2005). Ferroni, Maeto, and Payne (2007) explore the links between trust, inequality, and social cohesion in Latin America and find that social cohesion is positively linked to economic growth and growth-enhancing institutions and negatively associated with inequality and low social capital in the form of trust. Similarly, it is argued that greater inequality leads to more crime. In particular, it makes property crimes more

[11] Castells-Quintana and Royuela (2014) and Erhart (2009) provide alternatives for structuring the transmission channels between inequality and growth.

attractive. There is a lower opportunity cost attached to crime because the lower the wages, the less there is to gain at the bottom of the distribution. Meanwhile, the expected gains from crime are greater because there is more to steal from the top of the distribution (Chiu and Madden 1998; Josten 2003). That crime and social capital are interconnected is widely recognized in the literature, and several authors have found that crime adversely affects social capital, and this has additional implications for economic growth and development (Liska and Warner 1991; Messner, Baumer, and Rosenfeld 2004).

The economic distance between individuals or groups in a society can have major repercussions on growth through the formation of social capital and trust. A large recent literature has established that social capital and trust can help overcome the dilemmas in prisoner's dilemma games, thereby increasing overall cooperation within a society, which can have positive impacts on a wide range of outcomes, including business transactions, the adoption of technology, and enhanced health and education (Ostrom 1990).

If large, the distance between individuals can also have explicit negative consequences for growth through social unrest and sociopolitical polarization in society (Easterly 2001; Keefer and Knack 2002). A polarized political landscape can have adverse macroeconomic consequences such as political stalemates in efforts to achieve major policy reforms and political budget cycles as well as greater uncertainty leading to a less favorable investment climate.

Unequal income distribution that is characterized by heavy concentration of wealthat the top can be detrimental to growth by making the capture of institutions easier for elites and encouraging bias in the economy in the favor of elites (Glaeser, Scheinkman, and Shleifer 2003). An example is the establishment of exceptions favoring the most well off in the contributions to public goods and services such as health care and education. Such an unequal distribution is also

detrimental to the process of democratization, thereby perpetuating the link across weak institutions, inequality, and low growth.

Domestic demand is a crucial factor in determining economic growth at least in the short to medium term. It is typically associated with a strong middle class. This implies a relatively equal income distribution, relatively few poor, who are able to cover their basic needs and do not require technologically sophisticated products, and relatively few rich, who primarily require luxury goods (Foellmi and Zweimüller 2006; Murphy, Sleifer, and Vishny 1989; Zweimüller 2000). In this context, redistribution from the rich to the poor would be growth enhancing because it would boost demand (Erhart 2009).

Another well-known channel linking inequality and growth through the middle class is analyzed through the median voter theorem and related political economy arguments. According to these, the wider the inequality in a society, the lower the income of the median voter relative to the average income and the greater the preference of the median voter for redistribution, thereby lowering growth and reducing the incentives of effort through high marginal taxation (Alesina and Rodrik 1994; Bertola 1993; Perotti 1993). This channel would only function in a democracy, which is also a reason to distinguish between democratic and nondemocratic countries in empirical analyses.

The median voter theorem has been challenged not only on empirical grounds, but also theoretically (Deininger and Squire 1998; Milanović 2000; Perotti 1996). For example, Bénabou (2000, 2002) argues that, if the rich have more political power than the poor, they may lobby against redistribution measures even if these may be efficient. A recent report of the IMF (2014) – one of the few studies examining inequality, redistribution, and growth simultaneously – challenges this proposition using newer data and finds that wider inequality is associated with

more redistribution, but concludes that redistribution is nonetheless not harmful to growth. Indeed, redistribution leads to both higher growth and longer duration in the growth spells. Notwithstanding, one ought to consider the peculiarities of the underlying data and the fact that the literature is far from conclusive about the overall effects on economic growth associated with redistribution.

### 3.3.3 The empirical impact on growth

In the mid-1990s, the empirical debate was significantly enhanced by the availability of a much broader set of data on inequality across the world. Since then, many studies and reviews of the subject have appeared (Neves and Silva 2014). Cross-sectional studies generally tend to find a negative relationship between inequality and growth, whereas panel analyses yield mostly positive or insignificant results (Alesina and Rodrik 1994; Clarke 1995; Deininger and Squire 1998; Perotti 1996; Persson and Tabellini 1994).

Ensuing debates have focused on weaknesses in the data. Thus, Atkinson and Brandolini (2001) show that the comparability and consistency of the often-used Deininger and Squire (1996) dataset are questionable. Likewise, Knowles (2005) argues that most of the evidence on the growth and inequality relationship in cross-sectional studies is derived from inequality data that are not fully comparable. Once the heterogeneity in the underlying income concepts is accounted for, he concludes that there is no remaining relationship between income inequality and growth, but that inequality in expenditure is still negatively correlated with growth.

The WIID dataset has since appeared and significantly enhanced the coverage, but also the transparency of the data on inequality, although concerns and criticisms remain (Atkinson and Brandolini, 2009). More recently, Solt (2016) has, based on the latest version of WIID, used imputation techniques to attempt to address data gaps and consistency issues in his SWIID

dataset. Jenkins (2015) criticizes this approach, but the data have been used in a number of subsequent studies (Ostry et al. 2014; Scholl and Klasen 2015).

Endogeneity, that is, a problem caused by reversed causality or a spurious correlation related to an omitted third variable (unobserved heterogeneity), is a problem in these cross-sectional studies. The only cross-sectional study that explicitly addresses the endogeneity problem is the study of Easterly (2007), who instruments inequality through a country's wheat-sugar ratio, which is a function of the share of land suitable for growing wheat over the share of land suitable for growing sugarcane.[12] Easterly shows that wider inequality is associated with lower income, worse institutions, and less educational attainment. Most of the cross-sectional results should be viewed with caution because they may contain substantial omitted variable bias, given that any unmeasured factors associated with both inequality and growth can be wrongly attributed to an effect of inequality on growth.

Although the availability of panel data does not help perfectly resolve this issue, the possibility of introducing fixed effects allows the removal of at least the time-invariant portion of the omitted variable bias, which is also the main explanation for the divergence in findings between cross-sectional and panel studies.

Forbes (2000) used a panel approach to address unobserved heterogeneity through fixed effects and endogeneity through the use of generalized method of moments–type approaches. Second, her fixed effects specification that exploits the within-variation is also the more policy-relevant approach because policy makers are interested in whether changes in inequality will

[12] The idea is based on the hypothesis of Engerman and Sokoloff (2002) that agricultural endowments are predictors of the institutional environment. Thus, growing sugarcane is more likely to involve large-scale farming and poor working conditions at low pay, which leads to extractive institutions and wider inequality, whereas wheat production involves family farming and is associated with less inequality and the emergence of a middle class.

promote or hurt subsequent growth. This approach came at the cost of rather short panel periods of only five years, which may be too short for the mechanisms discussed above to work. Forbes finds that widening inequality is associated with greater subsequent growth, although the result is not significant if ten-year periods are used.

The paper by Forbes has attracted a lot of debate and commentary, related to data, functional form, and econometric methodology (Knowles, 2005; Banerjee and Duflo, 2003; Roodman, 2009). The effects of inequality on growth in a panel setting remains largely an open question. In another widely cited study, Barro (2000) finds that greater inequality leads to lower growth in poor countries and higher growth in rich countries, but there is little overall relationship between income inequality and growth. Deininger and Olinto (2000) focus on asset inequality instead of income inequality in their panel of sixty countries, and find a negative and significant relationship with subsequent growth rates. Ezcurra (2007) looks at annual regional growth across the European Union over 1993–2002 and concludes that greater inequality is associated with lower growth. Ostry et al. (2014), in an IMF study, examine the simultaneous impact of initial inequality and redistribution on subsequent growth in a panel setting. They find that initial inequality is associated with reduced growth in the subsequent five years, that redistribution has no impact on growth, and that greater inequality shortens the duration of growth spells. Insufficient information is provided on the details of their econometric system generalized method of moments methodology to assess fully the robustness of their findings. Cingano (2014) focuses only on OECD countries and, using particularly good inequality data, also finds that initial inequality is associated with lower subsequent growth and that the effect of inequality at the bottom of the distribution is especially pronounced. Scholl and Klasen (2015) reexamine the data and the approach of Forbes (2000) using an expanded and updated panel

dataset, including many more and arguably improved data on inequality and advanced econometric methods and tests. They find that inequality has a small positive impact on growth, but that this is entirely driven by the experience of transition countries in the 1990s; if one controls for this characteristic, no significant effect emerges.

Other approaches have used time series methods to assess the link between inequality and growth and several find that ineuqality reduces growth (e.g. Herzer and Vollmer, 2012; Herzer and Vollmer, 2013). Andrews, Jencks, and Leigh (2011) test the trickle-down hypothesis and find that a rise in top incomes is associated with a slightly higher growth in the following year, while Herzer and Vollmer (2013) find the opposite.

The results of reduced-form panel studies based on different methods are heterogeneous and, despite the continuous improvement of the inequality data since Deininger and Squire (1996), data issues and concerns about the functional form and appropriate estimation techniques are still being raised in the literature. While more panel studies seem to have found a negative effect of inequality on growth in recent years, these results are often driven by particular methodological choices, data, time periods, and lag structures. It appears clear, meanwhile, that the initial finding of a positive effect of inequality on growth is an outlier and related to a particular empirical approach. Thus, on average, one should not expect a uniform trade-off between inequality and growth. It is quite plausible that these average effects hide substantial variation. In line with the theoretical literature, it may well be the case that certain changes in inequality, such as investment in the human resources of the poor, will promote growth, while others, such as arbitrary seizures of assets, might hurt growth. The empirical literature on these various mechanisms is currently insufficient.

### 3.3.4 Inequality and financial stability

In the wake of the global financial crisis that started with the crisis in the U.S. subprime mortgage finance sector, the question on whether inequality promotes unsound financial practices that can promote financial crises with negative growth and welfare implications has received attention. One argument is that widening inequality promoted the development of the subprime mortgage market to ensure that poorer people were able to purchase homes despite their stagnant or falling incomes. Some observers indeed argue that widening inequality, particularly in the United States, was a key cause of the global financial crisis. Kumhof and Ranciere (2011), Lysandrou (2011), Perugine et al. (2015), Rajan (2010), and Stockhammer (2015) argue that this is the case, while Bordo and Meissner (2012) dispute the link. Even if rising inequality facilitated the emergence of unsound financial practices that ultimately caused the crisis, the failure of financial market regulation and the politically driven deregulation in the financial sector played an important role in allowing these unsound practices to develop. It is difficult to assess to what extent this failure of regulation is related to rising inequality, for example, because of the push for deregulation by the rich.

### 3.3.5 The impact on conflict

There are two main theoretical lines of argument on the impact of inequality on conflicts: the relative deprivation hypothesis and the resource mobilization hypothesis (Muller 1985). According to the relative deprivation hypothesis, many forms of deprivation-induced discontent are positively associated with political violence. Most empirical research relies on polarization measures as a proxy for relative deprivation (Thorbecke and Charumilind 2002). Such measures tend to be positively related to the risk of conflict (Bueno de Mesquita 1978; Keefer and Knack 2002; Montalvo and Reynal-Querol 2005). Thus, to the extent that it may lead to polarization, income inequality could indirectly result in conflict.

The resource mobilization hypothesis draws attention to the discontent generated by the inequality of resources that could then lead to conflict. An offshoot of this hypothesis is the land maldistribution hypothesis, which posits that the discontent arising because of the highly concentrated distribution of land and the lack of land ownership in agrarian societies are significant determinants of mass political violence (Thorbecke and Charumilind 2002). There is evidence in support of the view that land inequality tends to raise the incidence of conflict (Binswanger et al. 1995; Huntington 1968; Midlarsky and Roberts 1985; Russet 1964). However, Muller and Seligson (1987) find that inequality in the distribution of income rather than inequality in the distribution of land primarily explains the rates of political violence across countries. André and Platteau (1998) fault both land inequality and income inequality for provoking violence, particularly in the 1994 Rwandan genocide.

Although horizontal inequality may not be associated directly with conflict, it stimulates grievances that intensify the likelihood of rebellion (Gurr and Moore 1997). In certain cases, it facilitates the outbreak of conflict (Østby 2008). However, empirical research has not yet established a substantial relationship between vertical inequality and the risk of the outbreak of war (Collier and Hoeffler 2004; Fearon and Laitin 2003). Instead, the literature tends to find a stronger relationship between the polarization of groups and conflict, suggesting that the type of inequality matters significantly for conflict (Esteban and Ray 2011).

### 3.3.6 The relationship between inequality and social movements

Does the starkness of an inequality spur a disposition to organize social movements against inequality? Sociologists and political scientists have long considered the question whether absolute disadvantages or relative disadvantages may act as a trigger of social protest (Runciman 1972). This question may be reduced to a question about whether the level of

disadvantage conceived in any way or a change in the nature of the disadvantage matters most in causing social protest. The literature is inconclusive. An important reason why this is so is because unequal situations that persist may tend to generate a cultural and ideological framework – for instance, adaptive preferences – that tends to rationalize inequality and repress social discontent (Elster 1985; Sen 2002). Another important reason is that, in a context of inequality, those who benefit from the inequality, such as political parties or nonparty political formations, including persuasive or coercive forces, may invest in strengthening the political actors that help sustain or widen the inequality, and, by definition, these factions possess more resources to accomplish such an outcome. Inequality may also tend to promote a society with more heterogeneous interests in the face of which collective action is more difficult (Bardhan, Ghatak, and Karaivanov 2007). Among those who share a common interest, the incentive for collective action may also become stronger, but, in most contemporary societies, individuals, even in large numbers, often have no ready method of joining together to support their shared interests, rendering collective action difficult (Bates 1981; Olson 1965). The impact of inequality on the sense of fellow feeling and the absence of widely accepted social standards and values are also relevant, but poorly understood factors that may influence the potential for collective action, including against inequality.

Examination of the empirical relationship between inequality and social movements reveals a clear link. For instance, the mobilization of new social movements promoted in Latin America beginning in the mid-1990s was a reaction to the sharp widening in inequality recorded during the previous decades that were dominated by liberalization and structural adjustment. Indeed, in Latin America, the steep decline in income inequality in 2002–14 coincided with a major shift in the political landscape that was the culmination of a gradual return to and

consolidation of democracy. This included a turn to the left (the *left turn*) in the political orientation of most incumbent governments. The number of countries run by center-left administrations rose from two to thirteen between 1998 and 2009 and remained almost unchanged until 2013. This and the revival of social movements helped repoliticize the issues of inequality and social justice and bring distributive and redistributive policies back to center stage after the oblivion of the 1980s and 1990s.

As suggested in opinion polls of the Latinobarómetro survey, a major factor behind this political turnaround was growing frustration with the disappointing results of the policies of the Washington Consensus implemented in the 1980s and 1990s. These policies and the world recession and debt crisis of the 1980s led to a contraction in manufacturing and public services, rising unemployment, an enlargement of the informal sector, a severe reduction in GDP, sluggish growth throughout the 1980s, and widening inequality.

As Panizza (2005) notes, the political coalitions supporting the new center-left governments included social movements of the urban and rural poor, unemployed and informal sector workers, indigenous groups, and local and decentralized organizations. These were now at the forefront of social mobilization, where they had replaced the historical trade unions and the parties on the left. The new coalitions included also representatives of the business community and professional middle class who had traditionally voted for conservative parties, but had switched political allegiance after experiencing a decline in the level and share of incomes during the two previous decades. There is little doubt they had been instrumental in raising awareness of redistributive issues and repoliticizing the entrenched inequalities in Latin America (Roberts 2014).

The role of social movements and their relationship to inequality is quite different in Africa. Although social movements for independence abounded in the 1950s and 1960s in Africa, these movements were primarily concerned with the transfer of political power from the colonialists, rather than against economic inequality. However, the structural adjustment supported by the Washington Consensus in the late 1970s through the 1990s under the Bretton Woods Institutions (mainly, the IMF and the World Bank) led to widening in inequality in many African countries. This occurred directly because of reductions in government subsidies on basic commodities and indirectly through depreciations of national currencies, resulting in higher prices for the commodities. This represented an attack on living standards, particularly among the urban poor, leading to food riots in the late 1970s and early 1980s (Zghal 1995). More recently, attempts by governments to reduce direct or indirect subsidies on essential commodities have been met with unrest because such policies invariably raise the prices facing many, including especially the poor, and widen inequality.

During the colonial period, South Asia witnessed anticolonial and nationalist movements. Using the language of inequality, one might frame these movements as the reflection of a desire to redress iniquities in the political environment, that is, transfer power from the colonial rulers. Since independence, South Asian countries have witnessed various social movements emerge in response to inequalities. One set of movements strived for more equitable land distribution to curb the power of the landed elite and to give a fairer share to small, low-income landholders and hired agricultural laborers (Banerjee, 1980; Dasgupta, 1975). Agriculture continues to provide the raw material for movements, agitation, and mobilization such as in the protests among farmers in certain parts of India today (see Langa and Sriram 2017).

Another dimension on which social movements have focused is caste, an important social division in South Asia. There is considerable debate on the nature of the caste system and how it was shaped by colonial rule (Dirks 2001; Gupta 2000; Srinivas 1998; and the references therein). Movements against the injustices of the caste system have arisen during various periods in the history of South Asia. After the end of colonial rule in countries that have become democracies, such as India, caste groups have relied on the state through affirmative action, for instance, and electoral politics to improve their disadvantaged status.

### 3.3.7 The impact on behavior

A fundamental aspect of inequality is that people are affected differentially. The more well off have one set of experiences, and the less well off have a different set of experiences, with substantially different impacts on behavior. An increasing body of knowledge points to developmental and biological disruptions occurring because of exposure to early childhood adversity (McEwen and Gianaros 2010; Shonkoff, Boyce, and McEwen 2009; Shonkoff et al. 2012; see also Chapter 18). Besides the effects on child development, there are important behavioral repercussions in adulthood associated with adverse circumstances.

A central feature in the lives of people with low incomes is that they must juggle their spending to coincide with sporadic income, and they must constantly weigh difficult and often expensive trade-offs (Collins et al. 2009; Edin and Shaefer 2015; Morduch and Schneider 2017). Financial services, including at banks, informal lenders, and rent-to-own stores, as well as landlords, utility companies, and health care providers, impose high interest rates and steep late payment penalties. A substantial share of the annual incomes of the poor goes for such expenses (Barr 2012a; Edin and Lein 1997; Mullainathan and Shafir 2009). It can be expensive to be poor.

The lack of sufficient funds leads to a drain on cognitive resources. It means needing to devote substantial time and mental resources to juggling: organizing payments for essentials, phone calls with providers, negotiations with creditors, and hits to credit scores. The constant budgetary concerns impose severe demands on the cognitive system, the human bandwidth (Baddeley and Hitch 1974; Luck and Vogel 1997; Miller 1956; Neisser 1976). This is bound to distract from other important duties, leading to diminished resources and reduced performance (Mullainathan and Shafir 2013). The cognitive overload and diminished mental bandwidth affect basic cognitive capacity, that is, the ability to solve problems, retain information, engage in logical reasoning, and so on. They can also affect executive control, the ability to direct cognitive activities, such as overseeing the allocation of attention, planning, remembering to perform important functions, self-monitoring, and impulse control (Mani et al. 2013; Mullainathan and Shafir 2013).

Other correlates of poverty may contribute to diminished bandwidth, including dysfunctional institutions, dangerous neighborhoods, physical pain, noise, pollution, and sleep deprivation. Poverty also correlates with depression and anxiety disorders, negative affects that narrow cognitive scope, and stress, which is the reaction of individuals to environmental demands that exceed their regulatory capacity (Haushofer and Fehr 2014; WHO 2001).

These constant and severe impositions on cognitive bandwidth may lead to short-sighted, risk-averse decision making, including favoring habitual behaviors at the expense of goal-directed behaviors (Haushofer and Fehr 2014). This may include a greater inclination to take out high-interest, short-term loans or becoming more impulsive in making dietary choices (Shah et al. 2012; Shiv and Fedorikhin 1999).

The challenges associated with poverty have long been observed to correlate with an

excess of counterproductive behaviors (Mullainathan and Shafir 2013). Thus, the participation of the poor in the financial mainstream may be limited and is often misguided (Bertrand, Mullainathan, and Shafir 2006; Caskey 1994). The poor also fail to take advantage of the entitlement programs despite eligibility (Currie 2006). They do not undertake preventive health care and fail to adhere to drug regimens (Katz and Hofer 1994). They are less likely to keep appointments and are more often tardy, and they are less attentive parents (Karter et al. 2004; Lee and Bowen 2006; Neal et al. 2001).

The stigma and stereotyping of poverty impact perception and behavior. The poor tend to be scorned, perceived as incompetent, and disrespected (Fiske 2011; Kerbo 1976). This view is often coupled with a belief that the poor are a burden on society, lazy, and unmotivated. This can lead to cognitive distancing and to welfare stigma, which purportedly causes many among the poor to forgo important benefits offered in the public and the nonprofit sectors (Bisset and Coussins 1982; Horan and Austin 1974; Kissane 2003; Reutter et al. 2009; Rogers-Dillon 1995).

If the self-worth of the poor is threatened, the poor may consume executive resources, leading to executive function disorder. Thus, if certain situations prove stigmatizing or intimidating, the defensive responses required and the stress about being judged according to stereotypes, along with efforts to suppress negative thoughts and emotions, can disrupt cognitive performance (Schmader, Johns, and Forbes 2008; Spencer, Steele, and Quinn 1999; Steele 1997). In striving to provide products and services that might help the poor, poverty advocates may thus be confronted by the additional hurdle of impaired performance arising because of the reaction of the poor to the stereotype threat.

A theoretical advance in the interpretation and manipulation of stigma and stereotype threat is self-affirmation theory, which posits that people can be motivated to sustain a sense of

self-worth and integrity (Steele 1988). For example, if positive aspects of the self, even those unrelated to the threat, are affirmed, the need to sustain one's sense of self-worth is met, and people respond less defensively to situations that otherwise would appear threatening (Aronson, Cohen, and Nail 1999; Sherman and Cohen 2006). Self-affirmation manipulations have been found to improve fluid intelligence and cognitive control performance among the poor and to enhance the willingness of the poor to take advantage of social benefits programs (Hall, Zhao, and Shafir 2013).

### 3.3.8 The impact on political participation

A mechanism through which economic inequality may have a substantial impact on society is political participation, which can create a feedback loop relevant to the production and reproduction of economic inequality. The decision to participate in political processes by voting, seeking to persuade or mobilize others to stand for office, and so on may well be systematically shaped by economic inequality. This is so especially if the more well off are able to deploy their greater resources in the political process openly or covertly. The extent to which the more well off are permitted to shape the political process differentially may have an effect on individual political outcomes, but also influence the institutions that govern day-to-day political decision making. Some of these institutions are open to public view, such as national electoral processes, and others are well hidden, such as the administrative procedures regulating specific industries, about which the general public may have limited awareness. Public financing versus private financing in the election campaigns of individual politicians and political parties, the remuneration of politicians that allows them to participate in politics without being either wealthy or paid off after their turn in politics, and other institutional and policy factors may help determine whether the more well off are able to shape political outcomes (Roemer 2006).

The low rates of voting and other forms of political participation in many countries, including wealthy countries with established democracies, is illustrative. Some voters may fail to vote because of their calculation that their votes are unlikely to be decisive. There are also other reasons. Some potential voters may believe, for instance, that the political options are already substantially set by powerful economic or social interests, thus rendering their votes meaningless. That the amount of trust in electoral democracy and in democratic institutions has been shrinking in some countries even as inequality has been widening is suggestive. This seems to be occurring in the United States, though the experience of European countries appears somewhat different.[13] Economic inequality may also interact with gender and social inequality to influence who is able to stand for public office, the messages that are advanced most forcefully, and the arguments that are able to succeed in public policy making.

### 3.3.9 The impact of gender inequality on growth

The literature has been expanding on the causes of gender inequality in education and employment and the consequences on economic growth. Some theoretical papers have emphasized that gender inequality in education and employment can reduce economic growth (Galor and Weil 1996; Lagerlöf 2003; Rees and Riezman 2012; Teignier and Cuberes 2015). A number of empirical studies have argued that gender inequality in education reduces economic growth (Klasen 2002; Klasen and Lamanna 2009; Knowles et al. 2002; Yamarik and Ghosh 2003). The evidence appears to be quite robust, although most of it is drawn from cross-country econometric studies. There is also evidence that gender inequality in employment can reduce

[13] See, for instance, the results reported at "Beyond Distrust: How Americans View Their Government; 1. Trust in Government: 1958–2015," Pew Research Center, Washington, DC, November 23, 2015, http://www.people-press.org/2015/11/23/1-trust-in-government-1958-2015/.

economic growth (Esteva-Volart 2009; Klasen and Lamanna 2009; Taignier and Cuberes 2015). The literature on this outcome is smaller and less conclusive. The quantitative importance of gender gaps for economic performance and the precise transmission channels for the effects of gender gaps on economic growth are less clear. Some argue that the growth costs of gender gaps are large, while others suggest that these gaps do not have substantial consequences, may not have a clear impact, or may be beneficial for growth (Bandiera and Natraj 2013; Duflo 2012; King, Klasen, and Porter 2009; Taignier and Cuberes 2015; Tertilt and Doepke 2014). A segment of the literature finds that gender gaps in the access to land and other resources in agricultural production reduce agricultural productivity in some settings (Goldstein and Udry 2008; Udry 2006).

### 3.3.10 The relationship among income inequality, education, and health inequality

As discussed in greater detail in Chapters 18 and 19 on health and education, because there are well-documented causal relationships in both directions between income, education, and health, income inequality likely promotes inequality in education and health unless steps, often involving public action, are taken to break the links. This calls for an investigation into the empirical importance of these links. The literature generally addresses this issue using two approaches. One approach is to study the correlations. The large literature on this topic finds that there is substantial correlation across income inequality, educational inequality, and health inequality (Checchi 2001; Deaton 2003). This correlation is hardly disputed, and there are good theories to explain the causal links in both directions. Less obvious is the impact of income inequality on average health or education outcomes. Most evidence points to the conclusion that wider income inequality leads to worse average health and education outcomes. For example,

Pickett and Wilkinson (2015) find that the literature points to the strong causal impact of income inequality on average health outcomes.

The other approach is to study the joint distribution of income, health care, and education. In the cross-country context, this is the approach, for example, of Grimm et al. (2008), Grimm et al. (2010), and Harttgen and Klasen (2012). These researchers find a strong correlation between income inequality, educational inequality, and health inequality. They also find that inequalities in nonincome dimensions are narrower, the greater the overall achievements in these dimensions. The conceptual and empirical literature on multidimensional inequality measures also discusses ways to capture the joint distribution of income, education, and health inequality (Aaberge and Brandolini 2014).

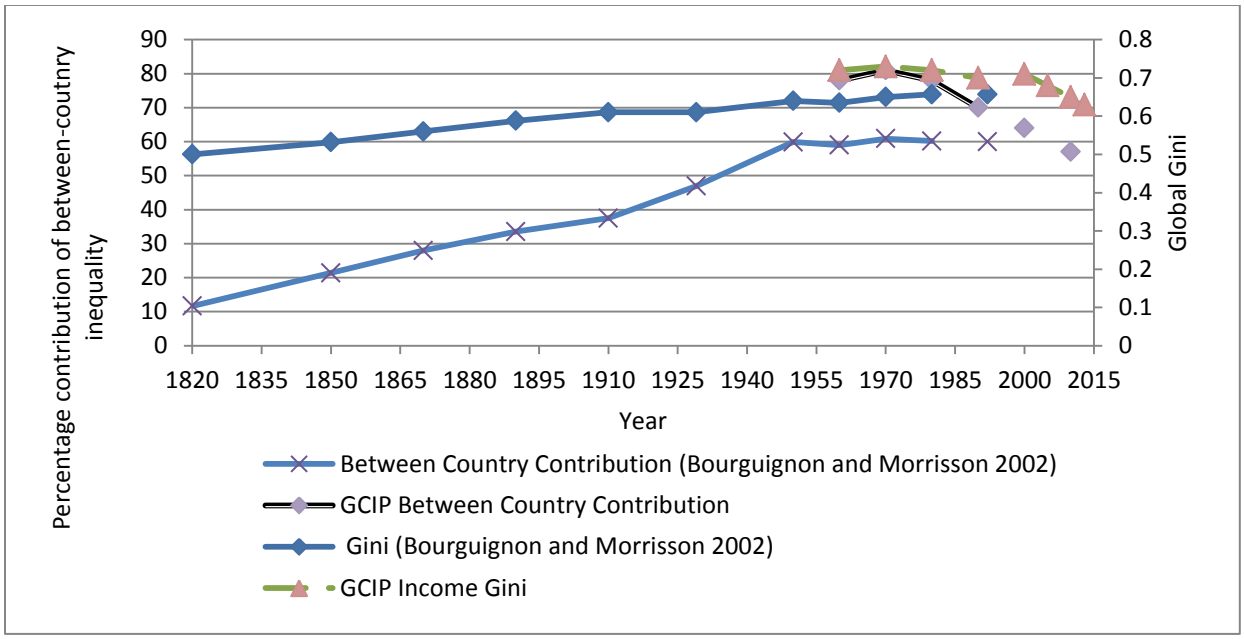
## 4. Global inequality

The estimation of global income inequality requires two basic types of data, namely, data on incomes in all countries and data on the distribution of incomes within each country. Data on incomes and the distribution of incomes have only recently become available for a sufficient number of countries to make an estimation of global inequality a possibility. Calculating global inequality over the long run by going back sixty or more years is far more difficult because of the lack of data and thus involves making many assumptions with unreliable data.[14] Figure 3.3 presents estimates of global inequality and the between-country contribution to total inequality as calculated in various studies from 1820 to 2013. These estimates are not always comparable

[14] The lack of data has arisen because of the lack of household surveys or tax records data before the 1950s and, more crucially, the lack of purchasing power parity (PPP) estimates to convert incomes expressed in national currencies into a single international currency prior to the 1990s.

because the data and assumptions vary across studies, but they are the best available estimates of global inequality over the long run.

**Figure 3.3. Long-Term Trends in Global Inequality, 1820–2015**




Source: Bourguignon and Morrisson 2002; Jayadev, Lahoti, and Reddy 2015.

The estimates from 1820 to 1992 are from the seminal work of Bourguignon and Morrisson (2002). The Global Consumption and Income Project (GCIP) database includes data on global inequality in 1960–2013 as well as estimates in other studies. Household income or consumption surveys that have become more frequent across countries only recently have been used to estimate global interpersonal inequality since the 1980s. Anand and Segal (2014), Bourguignon (2015), Jayadev, Lahoti, and Reddy (2015), Lakner and Milanović (2013), and Milanović (2002, 2005, 2012) use household survey information on income and consumption

trends and distribution to estimate global interpersonal inequality. Other studies use survey data to develop distribution information, but scale the within-country distributions to national account estimates of mean income or consumption (Chotikapanich et al. 2012; Dowrick and Akmal 2005; Sala-i-Martin 2006; Schultz 1998).

The trends and the rate of change in global inequality and its components may vary substantially depending on whether the estimates are based on household survey means or scaling up national accounts means, although the broad trends are similar (Deaton 2005). Anand and Segal (2008) find that the confidence intervals of global inequality measures are large because of various sources of uncertainty in the estimates arising from measurement and estimation problems. These facts make conclusions difficult about trends in global inequality in 1970–2000. Apart from the standard survey sampling errors, global estimates are also prone to errors arising from PPP measurements that are not quantified. Table 3.1 presents global estimates based on various studies to give a sense of the range in global inequality estimates in 1988–2008.

**Table 3.1. Comparison of Global Inequality Estimates, Various Studies, 1988–2008**

| *Source study* | *1988* | *1993* | *1998* | *2003* | *2005* | *2008* |
|---|---|---|---|---|---|---|
| GCIP, income | 69.6 | 69.6 | 69.2 | 70.6 | 68.4 | 66.6 |
| Anand and Segal (2014), with top incomes | 72.6 | 72.7 | 72.2 | 73.5 | 72.7 | |
| Anand and Segal (2014), without top incomes, survey means | 70.5 | 70.7 | 69.8 | 71.1 | 70.1 | |
| Anand and Segal (2014), without top incomes, household consumption, national accounts | 73.9 | 72.1 | 71.1 | 70.6 | 69.8 | |

| | | | | | |
|---|---|---|---|---|---|
| Lakner and Milanović (2013), national accounts mean + top-heavy Pareto imputation | 76.3 | 76.1 | 77.2 | 78.1 | 75.9 |
| Lakner and Milanović (2013), national accounts means | 71.5 | 70.5 | 70.6 | 70.7 | 67.6 |
| Lakner and Milanović (2013), survey means | 72.2 | 71.9 | 71.5 | 71.9 | 70.5 |
| Milanović (2012) | 67.8 | 69.3 | 68.8 | 70.1 | |
| Milanović (2005) | 61.9 | 65.2 | 64.2 | | |
| Milanović (2002) | 62.5 | 65.9 | | | |
| Bhalla (2002), income | 67.0 | | 65.0 | | |
| Bhalla (2002), consumption | 66.0 | | 63.0 | | |
| Bourguignon and Morrisson (2002) | | 66.0 | | | |
| Chotikapanich et al. (1997) | 65.0 | | | | |
| Dikhanov and Ward (2002) | 69.0 | | 68.0 | | |
| Dowrick and Akmal (2005), Geary-Khamis PPP U.S. dollar | | 64.0 | | | |
| Dowrick and Akmal (2005), Afriat efficiency index | | 71.0 | | | |
| Sala-i-Martín (2006) | 65.0 | 64.0 | 64.0 | | |
| Bourguignon (2012) | 71.0 | | 69.0 | | 66.0 |

*Note:* GCIP = Global Consumption and Income Project (database), World Bank, Washington, DC, http://gcip.info/.

*Sources:* Based on Lakner and Milanović 2013; additional data compiled by Klasen et al. 2016.

### 4.1 Trends in between- and within-country income inequality

The shape of overall global income distribution was unimodal and basically log normal in 1820–1913. By 1950, the unimodal distribution had shifted to a bimodal distribution. Twin peaks became pronounced thereafter up to the 1980s. There was another gradual shift to a unimodal distribution by 2010 (Jayadev, Lahoti, and Reddy 2015; van Zanden et al. 2013).

Global interpersonal inequality estimates based on historical data show that inequality was wide – the Gini coefficient was at about 0.5 – even in the early nineteenth century, during the first stages of the industrial revolution in the West.[15] Inequality widened substantially until World War I (1913) with the spread of industrialization and rapid growth in Western Europe, the Americas, and the Western offshoots (Australia, Canada, New Zealand, and the United States), while other regions were falling behind. An important feature of this period was a sharp increase in the between-country component of global inequality (the inequality that would exist if all individuals had the mean incomes of their countries, Milanović, 2011; Pritchett, 1997). Global inequality stabilized until World War II. It widened thereafter, but at a slower pace and peaked in the 1980s. The between component of global inequality showed an increase until 1955, when it peaked and accounted for 60 percent of total inequality. It was then stable until the late 1980s according to the national accounts data analysis of Bourguignon and Morrisson (2002).

According to the GCIP estimates, consumption inequality was at around 0.69 Gini points in 1960 and held steady until 2005, when it was 0.68, but declined to 0.63 in 2013 based on household survey data. Lakner and Milanović (2013) also estimate similar trends in inequality in 1988–2008 (0.72–0.70), with only a slight decline overall.[16] The within-country component of

[15] The estimates are similar across the three studies that calculate a measure of global inequality in this period: 0.5 according to Bourguignon and Morrisson (2002); 0.48 according to van Zanden et al. (2010); and 0.54 according to Milanović (2011).

[16] Given the substantial uncertainty and estimation errors in various sources in the measurement of global inequality,

inequality and total inequality increase by 2–4 Gini points if the data in household surveys are augmented by information on top incomes, but the trends remain similar (Anand and Segal 2015). The changes in the recent period seem small and insubstantial relative to the increase in global inequality during the nineteenth and early twentieth centuries.

Within-country inequality has expanded rapidly recently. Population-weighted average within-country income inequality widened from 0.42 in 1990 to 0.47 in 2010 according to the GCIP. In contrast, the between-country component of total inequality narrowed during the same period because of the faster pace of growth in China since the 1980s and in most developing countries in the first decade of the 2000s. Estimating global inequality and between-country inequality without China eliminates most of the decline in both these measures.

### 4.2 International inequality in education and health

Human well-being is a multidimensional phenomenon that is often correlated with incomes, though the correlation is far from perfect (Drèze and Sen 1995). Several dimensions, including health, education, and income, have been combined to create composite indexes of well-being, of which the HDI of the United Nations Development Programme is among the most widely applied. Prados de la Escosura (2015) uses historical data on health (life expectancy), education (adult literacy and enrollment rates), and income (per capita income) to create an historical HDI spanning 1870–2007. The index increased sixfold over the period, though there was up and down movements. In 1870–1913, there was steady, but moderate progress, which accelerated in 1913–1970, followed by sustained deceleration until 1990 and a rise thereafter. Prados de la Escosura (2015) shows that the gap between OECD countries and the rest of the

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this small change is likely insignificant.

world was stable until 1913, and the rest of the world slowly converged on the West up to 1970. After 1970, the pace of the catch-up of the rest of the world slowed. World regions vary in the timing and speed of the catch-up with OECD countries in human development. Latin America converged until the 1980s and then continued the convergence later, in the 2000s. Africa was catching up until the 1970s, but, since then, sub-Saharan Africa has not caught up further. Asia witnessed a period of convergence until the 1970s, dominated by improvements in education and health in China, and – driven by China and India – has rapidly caught up since 1990. The Soviet Union exhibited substantial gains in human development between the 1920s and 1960s, leading to a substantial catch-up of Central and Eastern European countries with the OECD. Since the late 1960s, however, the gaps have widened again between the OECD and Eastern Europe, which has been stagnating since the mid-2000s, mainly because of the absolute stagnation and decline in life expectancy in many transition countries at the start of the transition process (Cornia 2016).

To take account of the within dimensions of inequality, the United Nations Development Programme introduced the IHDI. The IHDI is based on indexes proposed by Foster, López-Calva, and Székely (2005) that are among the Atkinson family of inequality measures. The IHDI discounts the average value of each dimension of the HDI across the population according to the level of inequality. The gap between the HDI and the IHDI widens as inequality rises. Though not a perfect measure, the IHDI can be useful in gauging the losses in human development because of inequality. In 2015, IHDIs were calculated for 151 countries. The results indicated a

global loss of 22.8 percent in human development because of inequality.[17] The loss was largest in sub-Saharan Africa (33.3 percent) and smallest in Europe and Central Asia (13.0 percent).

### 4.2.1 Inequality in education

Using the Atkinson index ($\varepsilon = 1$), the *Human Development Report* estimates inequality in mean years of schooling in 2015 at 26.8 percent globally. South Asia is the most unequal region on this measure (41.5 percent). Using mathematics and science scores among eighth graders in forty-nine mostly rich countries, Sahn and Younger (2007) estimate within- and between-country inequalities in learning achievement. They find that slightly more than half of all inequality among this group of countries arises because of within-country differences in achievement. Using data of the 2006 round of the Programme for International Student Assessment survey, Ferreira and Gignoux (2014) calculate inequality in educational achievement in fifty-seven countries. Slightly over a third of total inequality in educational achievement in these countries is caused by inequality of opportunity.

### 4.2.2 Inequality in health

Various health indicators – child height, adult height, life expectancy, infant or under-five mortality, morbidity, and so on – have been used to measure inequality in health and have led to differing conclusions (see Chapter 18). Pradhan et al. (2003) use the height of preschool-age children, which is supposed to be comparable across the world, to analyze global inequality in health. They find considerable variation in intrahousehold inequality across countries. Decomposing health inequality within and between countries, they find that more than two-thirds

[17] See "Table 3: Inequality-adjusted Human Development Index," United Nations Development Programme, New York (accessed September 2016), http://hdr.undp.org/en/composite/IHDI.

of health inequality can be attributed to within-country variation. This contrasts with income inequality, where most of the contribution to global inequality arises from the between component.

Studying life expectancy across world regions, Joerg et al. (2014) find that, though life expectancy at birth increased by about 30 years in all regions of the world, the trend shows large variations. Globally, they find that life expectancy diverged in the late nineteenth and early twentieth centuries and then converged in the late twentieth century because of rapid gains in non-OECD countries. But in the two decades up until about 2000, life expectancy diverged across countries in several regions, and between-country inequality on this measure widened (Goesling and Firebaugh 2004). This outcome was closely linked with sharply rising AIDS mortality and substantial overall mortality rates in crisis-prone sub-Saharan Africa. Recent years have seen large gains in life expectancy and declines in under-five mortality in these regions, thereby contributing to a return to converging trends in life expectancy globally.

## 5. Trends in within-country inequality

### 5.1 Empirical trends, by outcome

#### 5.1.1 Income inequality

Data on income inequality often suffer from problems associated with incomparability across countries and across time, the lack of regularity in surveys, and from missing data. Although the situation is improving, the data problems remain severe, and the findings reflected in different datasets on levels and trends in inequality across countries and regions are frequently

inconsistent, and trends are often sensitive to the start and end-point of the analysis. The data used in this subsection are taken from studies that have carefully combined comparable data.[18]

Within-country income inequality was long considered a stable feature of every economy (Deininger and Squire 1996). Yet, already in the late 1970s, there were signs of widening inequality in many advanced economies (Piketty 2014). In the 1980s, inequality also started moving upward in developing and transition countries, and this tendency continued in the 1990s (Gruen and Klasen 2001). As a result, over 1980–2000, 69 percent of the 109 countries on which data are available recorded a systematic widening in income inequality, while only 23 percent recorded a decline (Table 3.2, top panel). The greatest number of increases was recorded in the transition economies, Latin America, the OECD, and Southeast Asia.

**Table 3.2. Trends in the Gini Coefficient, Countries per Region, 1980–2000 and 2000–2010**

| | | *Transition economies* | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Trend* | *OECD* | *Europe* | *Asia* | *Latin America* | *MENA* | *Southeast Asia* | *South Asia* | *SSA* | *World* |
| | | | | *Circa 1980s and 1990s* | | | | | |
| | *1980–2001* | *1990–8* | *1980–2000* | *1980–2002* | *1980–2000* | *1980–95* | *1980–2000* | *1980–95* | |
| Rising | 14–24 | | 2 | 14 | 2 | 5 | 3 | 9 | 73 |

[18] In the on-line version of the chapter, we also provide alternative estimates based on the Global Consumption and Income Project (GCIP), which are broadly similar, esp. regarding trends.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| inequality | | | | | | | | | (69%) |
| No change | 1–0 | 0 | 1 | 1 | 3 | 0 | 0 | 2 | 8 (8%) |
| Falling inequality | 6 | 0 | 0 | 3 | 3 | 2 | 2 | 8 | 24 (23%) |
| Total | 21–24 | | 3 | 18 | 8 | 7 | 5 | 9 | 105 (100%) |

*Circa 2000–10*

| | *2000–10* | *1998–2010* | *2000–9* | *2002–10* | *2000–7* | *1995–2009* | *2000–10* | *1995–2007* | |
|---|---|---|---|---|---|---|---|---|---|
| Rising inequality | 9 | 3 | 2 | 2 | 4 | 3 | 4 | 7 | 44 (41%) |
| No change | 4 | 5 | 1 | 1 | 0 | 0 | 1 | 1 | 13 (12%) |
| Falling inequality | 8 | 6 | 0 | 15 | 4 | 4 | 0 | 13 | 50 (47%) |
| Total | 21 | 4 | 3 | 18 | 8 | 7 | 5 | 21 | 107 (100%) |

*Note:* Countries were assigned to the rising, no change, or falling inequality groups on the basis of an analysis of time trends and of the difference between the initial and final Gini coefficients in each of the two subperiods. MENA = Middle East and North Africa. SSA = sub-Saharan Africa.

*Source:* Cornia and Martorano 2012.

Since the early 2000s, there has been a slowdown in the frequency and intensity of the rises in inequality. Indeed, in 2000–10, Gini trends diverged (Table 3.2, bottom panel). Income inequality narrowed in practically all of Latin America. Consumption inequality narrowed in thirteen of the twenty-one sub-Saharan African countries on which consistent data are available. Income inequality also narrowed in Korea, Malaysia, the Philippines, and Thailand (Cornia and Martorano 2012). In contrast, though at a slower pace than during the previous two decades, inequality continued on an upward trend in most OECD countries and several European and Asian transition economies, while the widening accelerated in China and most of South Asia. Overall, during this period, 47 percent of the countries recorded an inequality decline and 41 percent an increase.

Table 3.3 presents unweighted average Gini coefficients by region and income category in 2000–10, when regional inequality trends diverged, and inequality widened in most cases more slowly than during the previous two decades. In 2010, average inequality across the world was moderate: the average Gini was slightly less than 0.4. The level of inequality in the advanced economies, Eastern Europe and Central Asia, and South Asia was below the world average. It was above the world average in Latin America and the Caribbean and in sub-Saharan Africa. Inequality in East Asia was roughly at the world average. Latin America and the Caribbean showed the widest regional inequality. Inequality in low-income countries is well below the world average. The most unequal income group is the upper-middle-income countries, a reflection of the influence of unequal Latin America. Trends in inequality confirm many of these conclusions: slight increases in inequality in advanced economies and in East Asia, large reductions in Latin America, small reductions in South Asia, and little change in other regions,

leading to the overall impression of slightly falling average within-country inequality in the world in 2000–10.

**Table 3.3. Average Inequality, by Region and Income, 2000–2010**

*Gini coefficients, five-year averages*

| *Region, income* | *2000* | *2005* | *2010* |
|---|---|---|---|
| *Region* | | | |
| World | 0.390 | 0.385 | 0.380 |
| Advanced economies | 0.298 | 0.302 | 0.304 |
| East Asia and Pacific | 0.380 | 0.391 | 0.389 |
| Eastern Europe and Central Asia | 0.331 | 0.329 | 0.333 |
| Latin America and the Caribbean | 0.551 | 0.532 | 0.502 |
| Middle East and North Africa | — | — | — |
| South Asia | 0.354 | 0.351 | 0.328 |
| Sub-Saharan Africa | 0.445 | 0.434 | 0.440 |
| *Country income category* | | | |
| Low income | 0.316 | 0.32 | 0.323 |
| Lower middle | 0.421 | 0.412 | 0.399 |
| Upper middle | 0.442 | 0.436 | 0.428 |
| Total, middle | 0.431 | 0.423 | 0.413 |
| High | 0.397 | 0.386 | 0.386 |

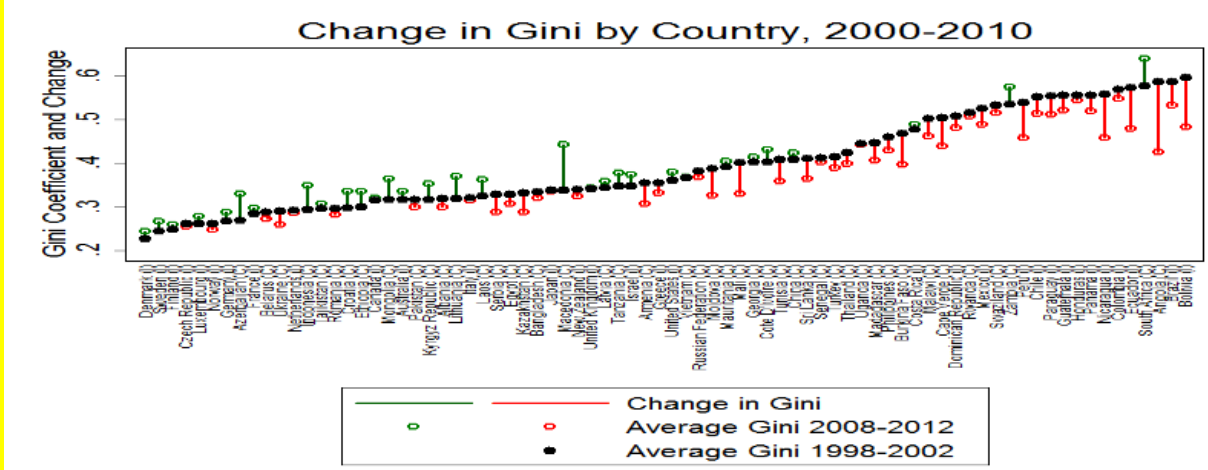
*Note:* The data are unweighted averages based on IDD (Income Distribution Database), Organisation for Economic Co-operation and Development, Paris, http://www.oecd.org/social/income-distribution-database.htm; PovcalNet

(online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/; SEDLAC (Socio-Economic Database for Latin America and the Caribbean), Center for Distributive, Labor, and Social Studies, Facultad de Ciencias Económicas, Universidad Nacional de La Plata, La Plata, Argentina and Equity Lab, Team for Statistical Development, World Bank, Washington, DC (accessed July 22, 2013), http://sedlac.econo.unlp.edu.ar/eng/statistics.php. The income concepts used for the computation of the Gini coefficients vary from region to region. — = not available.

Source: Lustig 2016.

There is evidence of a slight decline in average country-level inequality in the world in 2000–10. In particular, Latin America and the Caribbean – the most unequal regions – experienced a significant decline in inequality. Low-income countries showed a slight increase. Inequality in middle- and high-income countries narrowed slightly. Convergence is graphically apparent in Figure 3.4, which also illustrates that declining inequality was more frequent in the 2000s. Of the seventy-eight countries included in the figure, forty-five showed a decline, thirty an increase, and three no change.

**Figure 3.4. Trends in the Gini Coefficient, by Country, 2000–2010**




*Note:* See Table 3.2 for additional data sources. Green lines and dots refer to observations showing widening inequality between 1998–2002 and 2008–12. Red lines and dots refer to observations showing inequality narrowing.

*Source:* Lustig 2016.

These data all refer to within-country income or consumption inequality. Inequalities in education and health can follow a separate dynamic. Educational inequality, if measured in terms of schooling outcomes, tends to be larger in poorer countries than in richer countries. As education expands, the inequality may first widen, but, as average educational attainment rises, inequality usually narrows as the less well educated groups slowly catch up to in years of schooling with more highly educated groups (Breen et al. 2010; Harttgen and Klasen 2012; Ram 1990). There is less information on trends in health inequality because many studies focus on health inequality at a specific point in time. This subject is covered in detail in Chapter 18.

### 5.1.2 Inequality in access to environmental resources and in risk exposure

Access to environmental resources is typically unequally distributed within countries. For example, a report of the World Health Organization (WHO 2012) focusing on Europe finds that perceived access to green spaces varies across socioeconomic groups identified by income, education, or other characteristics. In the United States, considerable evidence has been gathered that the poor share a disproportionate burden of polluted air, polluted water, and toxic waste (Bullard 1993; Eligon 2016).

A key environmental resource is land. In urban areas, inequality in the distribution of landownership is usually construed and understood with respect to housing. For a description of the relevant issues and theories, particularly in developed countries, see Bruckner (2011). In developing countries, a phenomenon that has received recent attention is the expansion of slums (Davis 1999). A larger literature has focused on agricultural land whih is typically unequally distributed, although the breadth of inequality varies across the regions of the world (Griffin et al. 2002). In the developing world, the countries of Latin America and southern Africa have typically been characterized by greater land inequality. In certain contexts, historically disadvantaged groups, such as the scheduled castes in India, are distinguished by deficiencies in landownership. Inequality in landownership can be linked to the existence of various agricultural institutions (Ray 1998). Land inequality has also been linked to lower growth and conflict (Alesina and Rodrik 1994; Deininger and Squire 1998). Since the early 2000s, access to land among poor farmers has been increasingly threatened by foreign land deals in which customary land users are evicted (Nolte et al. 2016). At the same time, improvements in the certainty of rights over land use have been gradually achieved in sub-Saharan Africa and elsewhere since the mid-1990s (Cotula et al. 2004).

### 5.1.3 Levels and trends in inequality of opportunity

Roemer (1993, 1998) proposes a concept of inequality of opportunity that accounts for the source of the unequal distributions of outcomes (Roemer and Trannoy 2015). According to this notion, individual outcomes may be influenced by circumstances and efforts. Circumstances are defined as all factors that are beyond the control of the individual – such as parental education, gender, or ethnic origin – and for which individuals should not be held responsible. Effort, however, describes all actions and choices that are within the control of individuals for which individuals should be held at least partially responsible. Taking account of its origin, inequality may be decomposed into morally acceptable and morally unacceptable inequality. Hence, income differences because of effort are considered more acceptable, while income differences because of circumstances are not. Equality of opportunity occurs if the chances enjoyed by individuals to achieve a given outcome are influenced only by individual effort, irrespective of individual circumstances.

Empirical studies have measured the extent of inequality of opportunity in the achievement of various outcomes, such as incomes, wages, and health, in a variety of countries (Table 3.4). In European countries, inequality of opportunity accounts for about 5 to 25 percent of income inequality (Checchi et al. 2010). In a recent follow-up study, these authors show that these estimates were rather stable between 2005 and 2011. Pistolesi (2009) finds that, in the United States in 1968–2001, 20 to 43 percent of earnings inequality derived from inequality of opportunity. Results on less developed countries are usually somewhat higher than shares from European countries (Cogneau and Mesple-Somps 2008; Ferreira and Gignoux 2011).

**Table 3.4. Overview of Studies Measuring Inequality of Opportunity**

| *Author* | *Outcome* | *Data source* | *Circumstances* | *Country* | *IEO, index* |
|---|---|---|---|---|---|
| Aaberge et al. (2011) | Permanent income | Statistics Norway, 1967–2006 | Birth cohort, parental education, urban birth, household size | Norway | 28 |
| | Period-specific income | Statistics Norway, 1967–2006 | Birth cohort, parental education, urban birth, household size | Norway | 23–26 |
| Björklund et al. (2012) | Permanent income | Statistics Sweden, 1955–67 | Parental income, parental education, household type, number of siblings, intelligence quotient, body mass index | Sweden | 13–41 |
| Brunori et al. (2016) | Household per capita consumption | EIM, 2004 | Birthplace, parental education, parental occupation | Comoros | 30–42 |
| | | ECM, 2010 | Birthplace, parental education, parental occupation | Congo Dem. Rep. | 47 |
| | | GLSS, 2013 | Birthplace, parental education | Ghana | 35–56 |
| | | EIBEP, 2003 | Birthplace, parental education, parental occupation | Guinea | 35–37 |
| | | EPM, 2005 | Birthplace, parental education, ethnicity | Madagascar | 28–56 |
| | | IHS3, 2010 | Birthplace, parental education, mother tongue | Malawi | 43–56 |
| | | ECVM, | Birthplace, ethnicity | Niger | 33–40 |

| | | | | | |
|---|---|---|---|---|---|
| | | 2011–12 | | | |
| | | GHS, 2010–11 | Birthplace, parental education, parental occupation, ethnicity | Nigeria | 38–42 |
| | | GHS, 2012–13 | Parental education, parental occupation | Nigeria | 37–43 |
| | | EICV, 2000 | Birthplace, parental education, parental occupation | Rwanda | 26–42 |
| | | NPS, 2009–10 | Birthplace, parental education, parental occupation | Tanzania | 43–49 |
| | | NPS, 2010–11 | Birthplace, parental education, parental occupation | Tanzania | 41–46 |
| | | UNPS, 2009–10 | Birthplace, ethnicity | Uganda | 39–48 |
| | | UNPS, 2010–11 | Birthplace, ethnicity | Uganda | 40–53 |
| Checchi and Peragine (2010) | Gross earnings | SHIW, 1993, 1995, 1998, 2000 | parental education, sex, region | Italy | 20 |
| Pistolesi (2009) | Annual earnings | PSID, 1968–2001 | Age, race, parental education, region, father's occupation | United States | 20–43 |
| Ferreira and | Household per | ECV, 2003 | Sex, race, parental education, region | Colombia | 23 |

| | | | | | |
|---|---|---|---|---|---|
| Gignoux (2011) | capita income | | | | |
| Checchi and Peragine (2010) | Gross earnings | ENAHO, 2001 | Sex, race, parental education, region | Peru | 28 |
| Pistolesi (2009) | Annual earnings | ENCOVI, 2000 | Sex, race, parental education, region, father's occupation | Guatemala | 33 |
| Ferreira and Gignoux (2011) | Household per capita income | PNAD, 1996 | Sex, race, parental education, region, father's occupation | Brazil | 32 |
| | | ECV, 2006 | Sex, race, parental education, region, father's occupation | Ecuador | 26 |
| | | ENV, 2003 | Sex, race, parental education, region, father's occupation | Panama | 30 |
| Niehues and Peichl (2014) | Annual income | SOEP, 1984–2009 | Sex, country national, father's education and occupation, urban birth, height, birth year, born in German Democratic Republic or Federal Republic of Germany | Germany | 47–62 |
| | | PSID, 1981–2007 | Sex, country national, father's education and occupation, urban birth, height, birth year, birth in southern United States, race | United States | 33–36 |

| | | | | | |
|---|---|---|---|---|---|
| Peichl and Ungerer (2014) | Total net income | SOEP, 1992–2012 | Sex, country national, father's education and occupation, urban birth, height, birth year, born in German Democratic Republic or Federal Republic of Germany | Germany | 35 (1991–24 (2011) |
| Cogneau and Mesple-Somps (2008) | Household per capita consumption | EPAMCI, 1985–8 GLSS, 1998 EICVM, 1994 EPAM, 1993 NHIS, 1992 | Father's education and occupation, region (Colombia, Peru without father's occupation) | Côte d'Ivoire<br>Ghana<br>Guinea<br>Madagascar<br>Uganda | 13<br>11<br>13<br>21<br>9 |
| Checchi et al. (2010) | Net individual earnings | EU-SILC, 2005 | Parental education and occupation, sex, nationality, region | Austria<br>Belgium<br>Cyprus<br>Czech Republic<br>Denmark<br>Estonia<br>Finland<br>France<br>Poland<br>Greece | 22<br>17<br>30<br>11<br>14<br>11<br>10<br>13<br>9<br>17<br>10 |

| | | |
|---|---|---|
| | Hungary | 22 |
| | Ireland | 12 |
| | Portugal | 12 |
| | Latvia | 15 |
| | Lithuania | 24 |
| | Luxembur | 19 |
| | g | 14 |
| | Netherland | 5 |
| | s | 19 |
| | Slovak | 11 |
| | Republic | 21 |
| | Slovenia | |
| | Spain | |
| | Sweden | |
| | United | |
| | Kingdom | |

Note: EU-SILC = European Union Statistics on Income and Living Conditions (database), Eurostat, European Commission, Luxembourg, http://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions. Other data sources are generally national household surveys. IEO = inequality of economic opportunity index.

However, the empirical assessment of inequality of opportunity is complicated by the fact that datasets rarely account for all individual circumstances. Because the effect of omitted

circumstances appears as an effect of effort, the measurements of inequality of opportunity are downward biased. Balcázar (2015) suggests that about three quarters of inequality of opportunity is unexplained by the standard lower-bound estimator. This has led critics to question the relevance of inequality of opportunity for policymakers altogether (Kanbur and Wagstaff 2014). In particular, it is argued that these studies could be used to play down the problematic nature of inequality because most inequality appears to be ethically acceptable from the perspective of equal opportunity. A strategy to address the downward bias involves the use of detailed datasets that contain broader information on circumstance variables. Björklund et al. (2012) use intelligence tests from military records to obtain a better measure of individual ability, which, indeed, emerges as one of the strongest contributors to inequality of opportunity in Sweden. Hufe and Peichl (2016) use data with genetic information to move the lower-bound estimator in the direction of its true value. Another strategy is the use of panel data to estimate individual fixed effects with respect to the outcome of interest (Niehues and Peichl 2014). Scholars can thus measure the effect of all time-invariant circumstances. Such studies show that inequality of opportunity accounts for up to 75 percent of income inequality. However, this estimator is only an upper bound given that some components of individual effort are also constant over time. Both strategies are rather data intensive. Fruitful avenues for further research include the narrowing of the range between upper- and lower-bound estimators, increasing the comparability of inequality of opportunity estimates across countries and time, and the reconciliation of inequality of opportunity with other normative values (Brunori et al. 2016; Foguel and Veloso 2014).

### 5.1.4 Levels and trends in mobility and intergenerational inequality

As already discussed in 3.2.5, there appears to be a robust negative relationship between levels of inequality and levels of intergenerational mobility in a cross-section of countries. Few studies have investigated the issue of the development of intergenerational mobility over time. Most such studies have focused on the United States. Studies focusing on older cohorts tend to find little change in relative mobility – that is, the correlation in incomes between parents and children – among cohorts born in the 1950s and the 1970s in the United States (Lee and Solon 2009). Meanwhile, widening inequality and slower economic growth have ensured that absolute mobility – that is, the likelihood that incomes of children exceed the incomes of parents – has fallen sharply among cohorts born after 1960, including especially among middle-income groups (Chetty et al. 2017).

### 5.1.5 Inequality in political participation and power

Broadly, two distinct kinds of societies exist today. In the first, traditionally considered dictatorships, a small group controls political power and the institutions of the state and is mostly unaccountable to the citizenry. In the second, usually considered democracies, there is more accountability to the people and stronger checks and balances (such as through elections) on the actions and powers of the state and those who control the state. However, in both kinds of societies, disproportionate power may be wielded by certain individuals and groups. A vast literature has appeared on the state and nature of democracies and dictatorships (Acemoglu and Robinson 2009; Moore 1993; Poulantzas 1974; Therborn 2006).

One useful distinction that has been made is between inequality among individuals and inequality among groups (Stewart 2001). Studies on the vertical inequality (among individuals) have largely centered on consumption and income and virtually ignored political participation. This is despite the fact that some scholars have argued that certain individuals (the rich) have

more power and are also more likely to vote, so that it is not the median voter who is decisive, and this has implications for redistribution (Benabou (2000)). By contrast, studies on the horizontal inequality (across groups) have explicitly focused on politics and power. Stewart (2001) argues that inequality among groups is multidimensional and that the political dimension is crucial, along with the economic and social dimensions. Differences in political participation across groups may exist on several fronts, including government ministers, parliament, the civil service, and so on. Several studies have documented inequalities among groups in various contexts (Brown 2010; Mancini 2008; Motiram and Sarma 2014a; Østby 2008; Wimmer et al. 2009, Hufe and Peichl 2016). This literature argues that such inequalities are unfair and also lead to severe instability and conflict.

Gender is an important dimension on which differences in political participation and power are grounded. Only about 23 percent of parliamentarians in 2016 were women, although this represents an increase of 12 percentage points from 1993 (UN Women 2016). Wide variations in the share of women's parliamentarians exist across geographical regions; the Nordic countries are at the top, and the Pacific countries are at the bottom (UN Women 2016).

The literature on horizontal inequalities argues that various kinds of policies can be adopted to address these issues: affirmative action, antidiscrimination, and nation building (Stewart 2001). One option for addressing the issue of power and political participation is to reserve positions for disadvantaged groups. This policy has been tried in various contexts; evidence suggests that it can produce desirable outcomes (Chattopadhyay and Duflo 2004; Pande 2003; UN Women 2016).

### 5.2 Group-based inequalities in outcomes: gender, race, ethnicity, spatial

An extensive literature exists on levels and trends in gender inequality across the world. The literature highlights that gender gaps in educational enrollments, years of schooling, and completion rates are extremely large in the Middle East and North Africa, in South Asia, and in parts of sub-Saharan Africa, but much smaller in East Asia, Latin America and the Caribbean, OECD countries, and Southeast Asia. Even in regions with large gender gaps, these have been reduced sharply in the last two decades (Klasen 2016; World Bank 2011). In contrast, the sizable gaps in labor force participation have closed much more slowly; most of the progress has occurred in OECD countries, such as France, the Nordic countries, and the United States. Progress has been much more uneven in other parts of world. For example, female labor force participation has been declining in India and stagnating in many other Asian economies, while it has increased sharply in Latin America (Gaddis and Klasen 2014; Klasen and Pieters 2015). Progress has been even slower in closing gender wage gaps. This is related to highly persistent gendered occupational and sectoral segregation (Borrowman and Klasen 2017; World Bank 2011).

The results in other group-based inequalities such as race or ethnicity are highly country- and context-specific so that it is impossible to present generalized results. Spatial disparities have been an important feature particularly in developing countries, and spatial inequalities remain sizable there (Kanbur and Venables 2005).

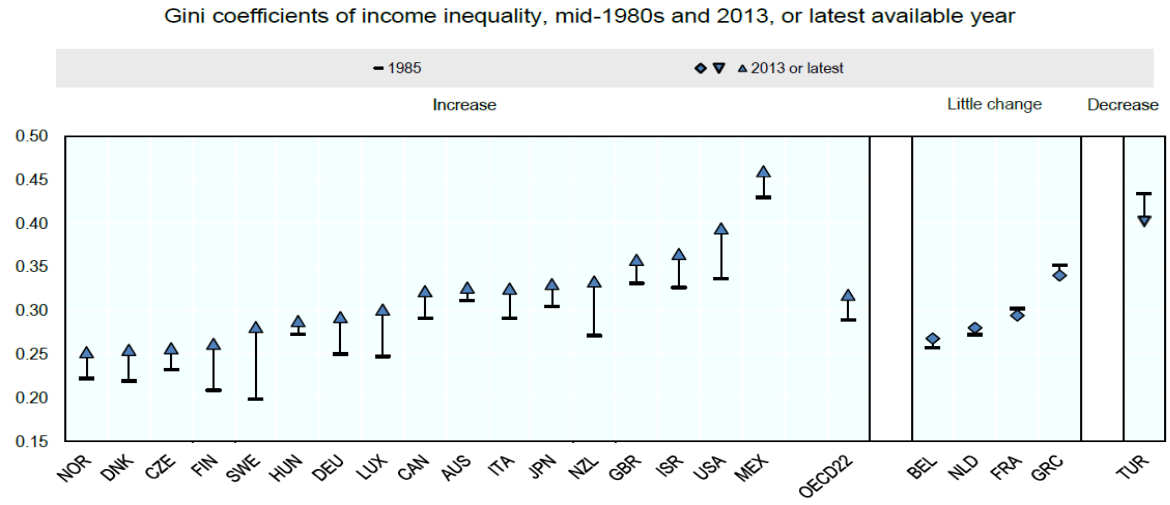
## 6. Accounting for within-country inequality trends

### 6.1 Trends and drivers of inequality in OECD countries

#### 6.1.1 Inequality trends

For the period between the mid-1980s and 2013, household surveys show that the majority of the OECD countries experienced a moderate widening in disposable household income inequality with Gini coefficients rising in 17 of the 22 OECD countries (OECD 2015, Figure 3.5).

**Figure 3.5. Gini Coefficients of Income Inequality, OECD, Mid-1980s and 2013**




*Note*: Income refers to disposable household income, corrected for household size.

Source: OECD Income Distribution Database (IDD), www.oecd.org/social/income-distribution-database.htm. Provisional data for 2013.

*Source:* Förster 2016.

The rise in income dispersion was stronger between the mid-1980s and the mid-1990s compared with later decades. A dominant pattern in this period was a widening in inequality in market income (OECD 2008). From the mid-1990s to the mid-2000s, the income distribution narrowed in 10 countries, while several other countries, including the United States, experienced

strong increases in income inequality. Since 2000, income inequality has increased substantially in Canada, Germany, Norway, and the United States and, to a lesser degree, in Finland and Italy. It has fallen in Australia, Greece, Mexico, and the United Kingdom, and, to a smaller extent, in the Netherlands and Sweden. During the economic recovery following the global financial crisis of 2008–9, income inequality before taxes and benefits continued to rise, while the cushioning effect of taxes and benefits has become weaker. As a result, a continued upward trend in disposable income inequality has been observed in the most recent years (OECD 2015).

### 6.1.2 Drivers of inequality change

A large literature has analyzed the drivers of changes in inequality in OECD countries. This subsection provides a brief summary of the drivers that have been analyzed in greatest detail.

Gross labor earnings make up the largest share of total household incomes and are an important driver of income inequality. Between the mid-1980s and 2017, wage disparities among full-time workers in the OECD have widened by between 20 percent and 25 percent (OECD 2011). Common explanations for this polarization in wages include changes in the supply and demand among skills and labor tasks and changes in labor market institutions (Atkinson, 2008, Acemoglu and Autor 2011). These considerations highlight that the drivers of widening wage inequality are multifaceted and particular to different segments of the wage distribution.

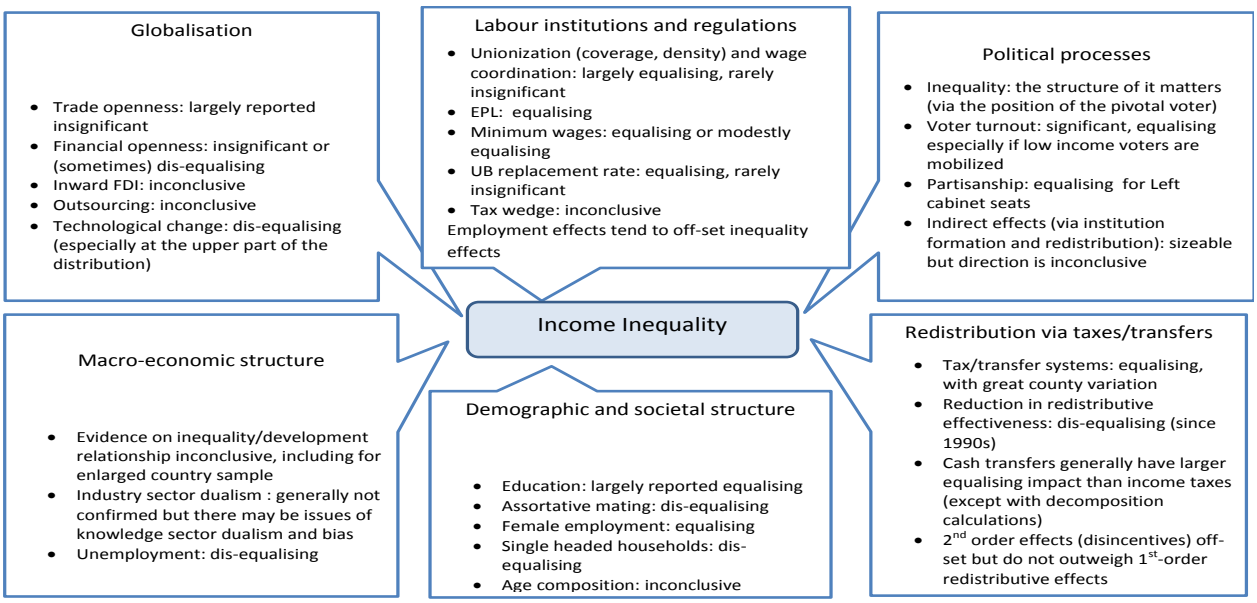
Changes in demographic structure, household size, and household compositions are important codeterminants of observed inequality patterns in OECD countries. All OECD countries have experienced a gradual shift away from the typical family structure of the past resulting in a decline in average household size, a corresponding loss in economies of scale, and an expansion in the need for greater monetary income to assure the same level of well-being. For

instance, Peichl et al. (2012) quantify how the trend toward smaller households has influenced the change in income distribution in Germany. The results show that the income gap would have increased regardless of the demographic trend, but at a lower level. Furthermore, total disposable household income depends on the characteristics of the individuals forming the households. Within the OECD, the growth in female labor force participation has exerted a moderating influence on the observed upward trend in inequality (OECD 2015). This is consistent with findings of Cancian and Reed (1998) who have studied the role of women's earnings in inequality. By contrast, the correlation between the earning of men and the earnings of women within households – assortative matching – has tightened in recent decades. This has magnified existing inequalities across households (Burtless 2009; Schwartz 2010).

Tax-benefit systems represent an important means to cushion the effects of widening market inequalities. As shown by Immervoll and Richardson (2011), the redistributive effect of tax-benefit systems, measured as the difference in inequality between market and disposable incomes, has increased in OECD countries in recent decades. However, this rise has been outpaced by increases in market inequality. Evidently, tax-benefit systems comprise a multitude of instruments with differential distributional implications. For example, Fuest et al. (2010) show that, among selected European countries, personal income taxes and social insurance contributions have a strong redistributive impact, whereas social benefits are less effective at redistribution because they are largely unconnected to the market income of the recipient. As a consequence of the economic crisis, many OECD countries have been forced to cut back redistributive programs to achieve fiscal consolidation (OECD 2015). One may therefore expect dispersions in market income to prevail to a greater extent among disposable incomes in these countries in the future.

Recent cross-country work by the OECD has been aimed at providing a comprehensive overview of the potential causal drivers of inequality change among OECD countries (Figure 3.6). This work has confirmed the role of skill-biased technological change, rising unemployment, eroding minimum wages, shrinking unionization, assortative matching, and reductions in the redistribution efforts of the state as significant drivers. However, there is no consensus on the respective size of these influences, and the results are inconclusive in many areas that have been examined (Förster 2016a).

**Figure 3.6. Drivers of Inequality Change, OECD Countries**




*Source:* Förster 2016a

Most analyses of inequality in OECD countries are based on standard household surveys that systematically underreport top incomes. Using tax records and other information, recent

work has documented the levels of and trends in the top incomes (Atkinson and Piketty 2007; Piketty 2013). This work has shown that the share of the top incomes in total incomes has been rising substantially in most OECD countries since the 1970s, leading to further widening in inequality that is not captured in standard surveys. The rising market income share of top income-earners is mostly related to disproportionately rising compensation among top managers and top employees in finance, growing wealth inequality, and the rapidly rising returns to wealth among top income-earners. Inherited wealth plays a crucial role in the transmission of top incomes. Falling taxation on wealth and high incomes has exacerbated this trend toward rising income shares of top earners (Piketty 2014).

### 6.3 Changing inequality trends and drivers in three Asian subregions

#### 6.3.1 South Asia and Indonesia: rising inequality amid rapid growth

During the last two decades, the region recorded an unprecedented growth acceleration that contributed to a rapid reduction in the incidence of poverty. Yet, in South Asia, income inequality widened in most cases (Table 3.5).

**Table 3.5. Trends in the Gini Index, Selected South, East and Southeast Asian Countries**

| *Country (years of reference)* | *First year* | *Second year* |
|---|---|---|
| Bangladesh (1991–2010) | 27.6 | 32.1 |
| India (1993–2010) | 32.5 | 37.0 |
| Nepal (1995–2010) | 35.2 | 32.8 |
| Pakistan (1990–2011) | 33.2 | 30.6 |

| | | |
|---|---|---|
| Sri Lanka (1990–2006) | 32.5 | 40.3 |
| China (1990–2008)[a] | 32.4 | 43.4 |
| Cambodia (1994–2008) | 38.3 | 37.9 |
| Indonesia (1990–2011) | 29.2 | 38.9 |
| Malaysia (1992–2009) | 47.7 | 46.2 |
| Philippines (1991–2009)[b] | 43.8 | 43.0 |
| Korea, Rep. (1998–2011)[a] | 37.5 | 31.1 |
| Thailand (1990–2009) | 45.3 | 40.0 |
| Vietnam (1992–2008) | 35.7 | 35.0 |

a. Data of WIID (World Income Inequality Database), United Nations University–World Institute for Development Economics Research, Helsinki, https://www.wider.unu.edu/project/wiid-world-income-inequality-database.

b. Data of Li (2015).

*Source:* Kanbur et al. 2014.

In India, the Gini index rose over 1993–4/2008–9. A key factor behind this surge was the growing wage gap between the organized and unorganized sectors, as well as between urban and rural areas (Datt and Ravallion 2002, 2009; Ghosh 2015). At the same time, the remuneration of managers and capital owners grew rapidly (Ghosh 2015). The wages of unskilled workers in minority groups were additionally penalized by social norms (Ghosh 2015).

In the case of other South Asian countries and Indonesia, Kanbur et al. (2014) argue that inequality widened because of the skill-biased technological change. Decompositions suggest that growing educational inequality explains up to 45 percent of the increase in income

inequality. Other factors that contributed to the rise of earnings inequality include weak labor institutions (minimum wages and collective bargaining), a commodity boom that favored only parts of populations, large and highly regressive fuel subsidies, and limited public expenditure on health care and education. In addition, there was an increase in the capital share and a decline in the bargaining power of organized labor (Kanbur et al. 2014; Miranta et al. 2013; Yusuf et al. 2015). A second explanation of the rising inequality is the increase in migration (IMF 2007). This has depressed the unskilled wage rate in both countries of origin and countries of destination. Trade liberalization has been unequalizing in most cases because it increased the demand for skilled workers and for the reallocation of labor across regions and sectors. Such reallocation has been hampered, however, by low labor mobility (Koujanou-Goldberg and Pavcnik 2007). Similar effects were generated by foreign direct investment allocated to capital- and skill-intensive industries, consisting of mergers and acquisitions or replacing the output of labor-intensive local firms. An even more forceful impact was caused by the opening in the capital account (Prasad et al. 2003).

Claus et al. (2014) show that fiscal policy barely reduced market income inequality. In the region, corporate income taxes, social security payments, sales taxes, excise taxes, and custom duties were all regressive, on average. Only the personal income tax was progressive, though, in many countries, high exemption thresholds and generous deductions reduced the redistributive potential of this tax. Meanwhile, public expenditure on social protection and housing was regressive, though it is progressive in other regions. Only public expenditure on health care and education was progressive. Thus, in the absence of explicit social policies targeting the poor, the inequality of market incomes was little affected by the tax-and-transfer system.

### 6.3.2 Moderate inequality decline in Southeast and East Asia after the 1997 crisis

After the Asian crisis of 1997, Korea, Malaysia, the Philippines, and Thailand experienced a moderate decline in income inequality (see Table 3.5). The impact of improvements in terms of trade appears to have been limited while a pragmatic and prudent pro-growth macroeconomic policy seem to have reduced inequality (Cornia and Martorano 2012). These countries also invested massively in public education, strengthened labor policies and developed social insurance and assistance policies and institutions. As a result, average income inequality narrowed by 2 or 3 Gini points in the 2000s.

### 6.3.3 China: a sharp rise in inequality until 2008 and a modest decline thereafter

Despite the country's regional diversity, China showed a low Gini coefficient in 1978: 0.32 economy-wide and 0.21 in rural areas. The distributive impact of the post-1978 reforms varied markedly over time. The egalitarian agricultural reforms of 1978–84 generated only a modest increase in both rural and urban inequality. In contrast, income concentration grew rapidly over 1985–2000 as the second wave of reforms focused on the urban industrial sector, with the result that the national Gini coefficient reached 0.43 in 2000. This surge in income disparity was caused by several factors, including a rise in the urban–rural income gap, mounting interprovincial inequality, widening rural inequality arising from widening earnings inequality in township and village enterprises, and increasing urban inequality because of the mass exploitation of rural workers who were without appropriate *hukou*, the household record indicating where people are allowed to live (Selden and Wu 2011). Because of pressures on the wages of migrant workers, earnings inequality and corporate profits rose in line with the increase in the skill premium in the modern sector. Despite mounting concern among central authorities and the launch of programs such as Go West and the Harmonious Society during the third phase

of reform, which focused on export-led growth during the 2000s, the Gini coefficient rose from 0.43 in around 2000 to 0.49 in 2007 (Li 2015). The success of the export–lead model depended, in fact, on labor policies that lowered wages and raised private, corporate, and public savings to finance rapid capital accumulation. It is unclear whether 2008 marks the beginning of a fourth phase in the trends in inequality in China. Data show that the overall Gini coefficient declined from 0.49 to 0.45 between 2007 and 2013, following a narrowing in the urban-rural gap in income per capita from 3.3 to 3.0 points because of the rapid rise in the wages of rural migrants and in the remittances of migrants to rural areas. The fall in the urban-rural income gap was facilitated by the introduction of pro-rural policies such as tax exemptions, the abolition of school fees, agricultural subsidies, and new health care, pension, and antipoverty schemes made possible also by the rise of the ratio of taxes to GDP from 12.2 in 1996 to 22.5 in 2010 (Selden and Wu 2011). However, inequality within urban areas and within rural areas continued to widen (Li et al. 2015).

### 6.4 The bifurcation in inequality trends in sub-Saharan Africa

#### 6.4.1 Trends in consumption inequality

There are few analyses of inequality changes in sub-Saharan Africa, not least because of limited data availability. Fosu (2015b) presents evidence of changes in inequality in 39 countries based on the PovcalNet database.[19] Table 3.2 shows that inequality declined in 21 of these 39 countries in 1995–2007. An analysis by Anyanwu et al. (2016) based on a panel of 17 West African countries in 1970–2011 identified a nonmonotonic inverted U–shaped inequality trend.

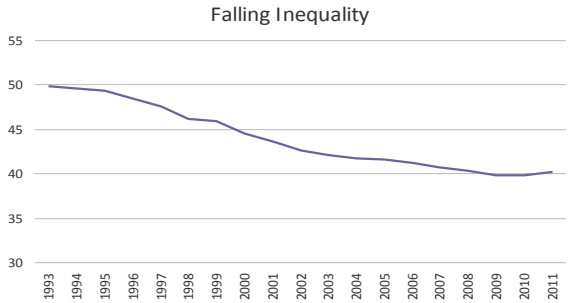
[19] See PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/. See also Fosu (2015a), who presents similar data on 23 sub-Saharan African countries.

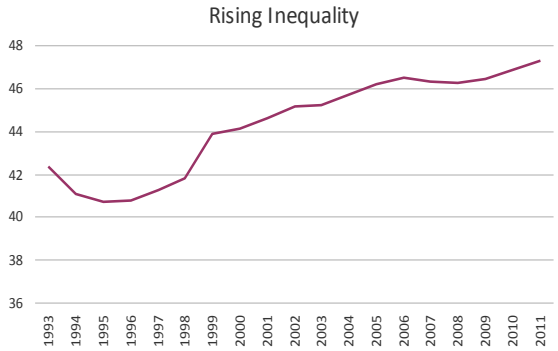
According to Cornia and Martorano (2017), over 1993–2011, the average unweighted Gini coefficient of the 29 countries in their data fell by 3.4 points, and the average population-weighted Gini fell by 2.0 points. Yet, a country-by-country analysis shows that such an average decline conceals more than it reveals. Indeed, this result is the sum of diverging falling, rising, inverted U–shaped, and U-shaped inequality trends (Figure 3.7). By restricting the analysis to the 2000s, one obtains a steadily declining trend in 17 countries (the two left panels in Figure 3.7) and a steadily rising trend in 12 countries (the two right panels). In West Africa, inequality narrowed steadily in 9 mostly agricultural economies out of 12, while a modest decline was recorded also in East Africa. In contrast, Central Africa and Southern Africa recorded a rise beginning around 2003, in line with the increase in the world prices of oil and minerals. These trends point also to growing intraregional divergence in inequality, as many low-inequality nations experienced a drop in the Gini, while high-inequality nations showed a rise or stagnation.

**Figure 3.7. Trends in the Unweighted Gini Coefficient of Per Capita Consumption Expenditure Distribution, 1993–2011**

**a. Falling Gini**: Burkina Faso, Cameroon, Ethiopia, The Gambia, Guinea, Guinea Bissau, Lesotho, Madagascar, Mali, Niger, Senegal, Sierra Leone, Swaziland

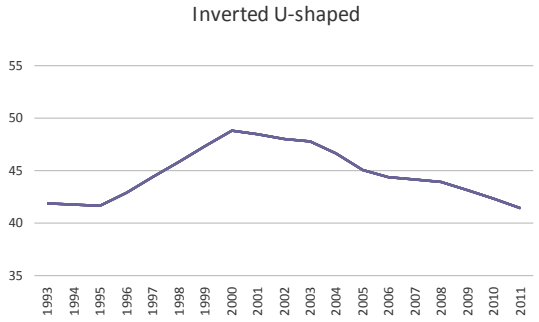
**b. Rising Gini**: Botswana, Côte d'Ivoire, Ghana, Kenya, Mauritius, South Africa, Uganda

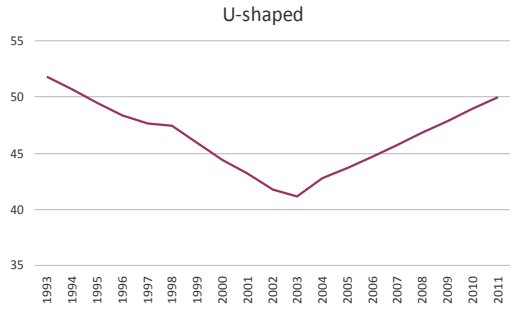



**c. Inverted U–shaped Gini**: Angola, Mauritania, Mozambique, Rwanda

**d. U-shaped Gini**: Republic of Congo, Malawi, Nigeria, Tanzania, Zambia




*Source:* Cornia 2016.

### 6.4.2 Factors explaining the bifurcation in the trends in consumption inequality

WInequality rose in countries that experienced a value added shift toward sectors characterized by high asset concentration (such as the resource sector), capital- and skilled-labor intensity (such as mining, oil extraction, and finance-insurance-real estate), the public sector, or unequal informal services (Anyanwu et al. 2016). In contrast, inequality fell or remained stable

in countries in which growth occurred in agriculture, manufacturing, construction, and a number of service subsectors (Cornia 2016).

Educational policy affects inequality. Yet, while average primary-school enrollments grew by over 20 points between 1998 and 2012, secondary-school enrollments increased by only half that amount. Cogneau et al. (2007) show that, especially in urban areas, the skill premium rose because of a rapid expansion in the demand for skilled labor. An econometric analysis confirms that the number of workers with secondary or higher educational attainment relative to the number with lower educational attainment affects inequality (Cornia 2016). Anyanwu et al. (2016) find that greater access to secondary education and lower age dependency ratios are associated with more equal incomes in West Africa.

Persistently high population growth and ensuing rising population density have raised inequality (Anyanwu et al. 2016). Rapid population growth increases inequality because of its impact on the ratio between land and population, the extent of forest cover, distress migration to the urban informal sector, growing differentials in the dependency ratio between rich and poor households, falling wages among the unskilled, and reduced social spending per capita.

Inequality also narrowed in places where a stable, competitive effective exchange rate shifted production toward the labor-intensive tradables sector that also offers protection to import-competing domestic production. The opposite also occurred. With trade liberalization, average tariffs fell from about 15 percent to 8 percent. This led to deindustrialization and a rise in inequality and confirms the findings of Koujianou-Goldberg and Pavcnik (2007) about the increase in inequality for several years after trade liberalization. Anyanwu et al. (2016) find similar results on a panel of 17 West African countries.

Since the early 2000s, the region recorded an average increase in the ratio of taxes to GDP and, in some countries, in the share of direct taxes in the total. Regression analysis shows that this increase was equalizing (Cornia 2016). In several countries, expanding tax revenue and the cancellation of foreign debt allowed public social spending to be raised. Where this occurred, the effect was equalizing. Where social spending stagnated, despite a growing fiscal space, the Gini tended to rise (Cornia 2016).

Changes in global economic conditions affected inequality in a variety of ways. Overall, gains in the terms of trade in extractive industries had a disequalizing effect. Rising remittances in sub-Saharan Africa were equalizing. Gains in international terms of trade were also equalizing, except in mineral-rich countries. Inward foreign direct investment was unequalizing (Anyanwu et al. 2016; Cornia 2016). Foreign aid rose from $15 billion over 1990–2001 to about $40 billion by 2006–7. Despite the doubts of several authors about the impact, an examination of the allocations of official development assistance since 2000 shows that this assistance was distributed according to criteria that were sensitive to the Millennium Development Goals (Hailu and Tsukada 2012).

Since the mid-2000s, the incidence of HIV/AIDS has slowly declined, and regression analysis shows this has exerted a modest equalizing impact in those countries affected (primarily in East and Southern Africa). The 2000s also witnessed the endogenous diffusion of low-cost and highly-divisible technologies, such as cell phones, the Internet, and solar panels, that might have helped marginalized producers and consumers integrate into the market. While the growth effect of such shocks was favorable, the effect on inequality was likely to be concave. The new technologies were thus initially being acquired by the middle class. Meanwhile, the number of

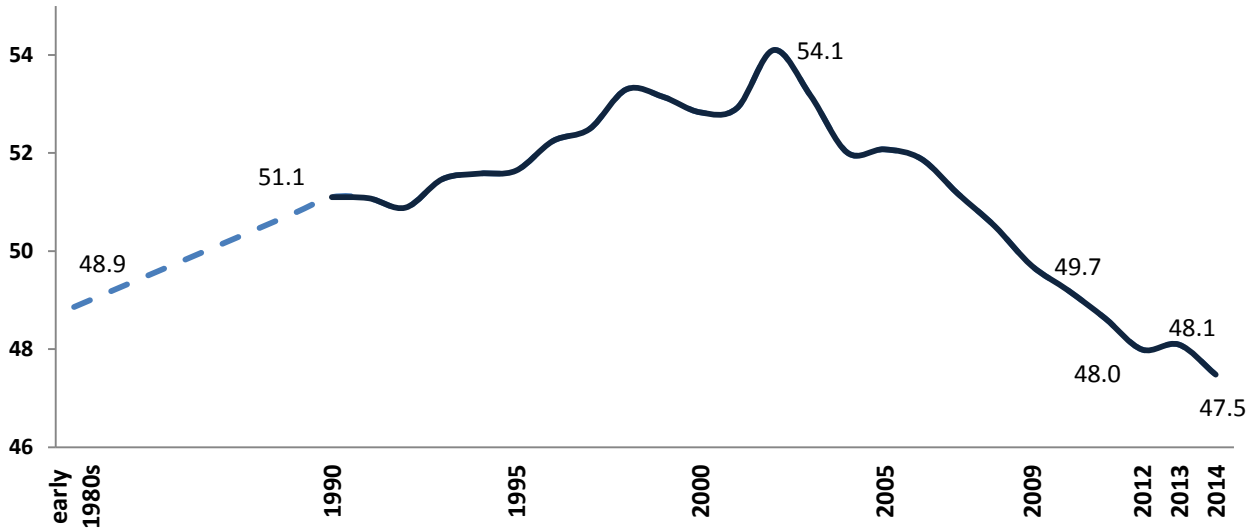
conflicts in the region fell from 25 in 1993 to 10 in 2010. The decline favorably affected growth and inequality (Anyanwu et al. 2016; Cornia 2016).

### 6.5 Declining inequality in Latin America

#### 6.5.1 Inequality trends

Latin America has been characterized as a high-inequality region for a long time. After rising in the 1980s and 1990s, however, income inequality declined rapidly in the region until 2012 (Gasparini and Lustig 2011; López-Calva and Lustig 2010; Figure 3.8). During the same period, the incidence of total poverty fell from 42.0 percent to 25.3 percent. Applying a Datt-Ravallion (1992) decomposition reveals that an average of 39 percent of the reduction in poverty was derived from the decline in inequality.

**Figure 3.8. Trends in the Average Unweighted Regional Gini, Latin America, 1980s–2014**




*Sources:* Cornia 2014a; data of SEDLAC (Socio-Economic Database for Latin America and the Caribbean), Center

for Distributive, Labor, and Social Studies, Facultad de Ciencias Económicas, Universidad Nacional de La Plata, La Plata, Argentina, and Equity Lab, Team for Statistical Development, World Bank, Washington, DC (accessed on June 10, 2016), http://sedlac.econo.unlp.edu.ar/eng/statistics.php.

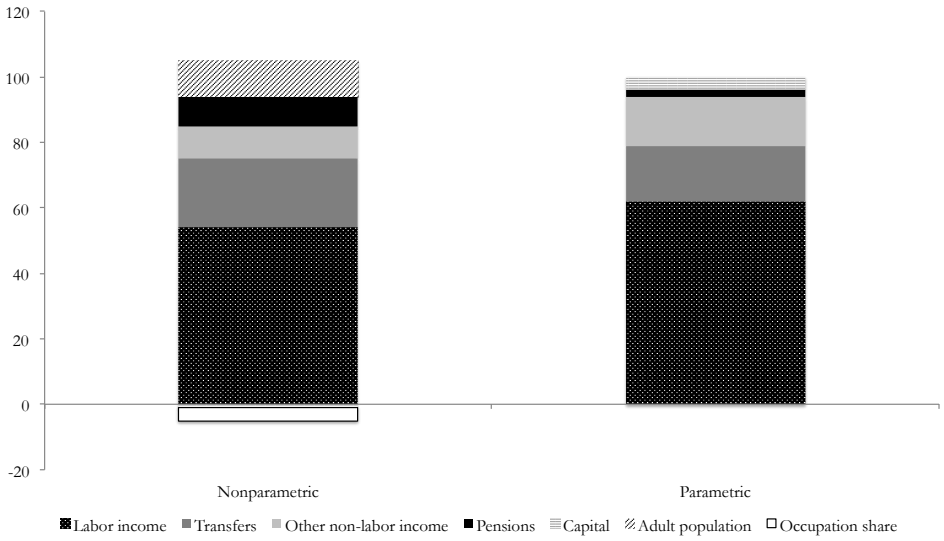
### 6.5.2 Determinants of declining inequality in Latin America

There is no clear link between the decline in inequality and economic growth. As discussed in Lustig et al. (2016), inequality narrowed in countries that experienced rapid economic growth, such as Chile, Panama, and Peru, and in countries with low-growth spells, such as Brazil and Mexico. Nor is there a clear link between falling inequality and the orientation of political regimes: inequality declined in countries governed by regimes on the left, such as Argentina, Bolivia, Brazil, Chile, and Venezuela, and countries governed by centrist and center-right parties, such as Mexico and Peru. However, while inequality fell in countries of different political orientations, the most rapid decline was recorded under the social-democratic regimes (Cornia 2014a). Most studies point to two main explanations for the decline in inequality: (1) a reduction in hourly labor income inequality and (2) more robust and progressive government transfers. The former contributes the lion's share (Figure 3.9).[20] An average of 54 percent of the decline in the Gini coefficient can be attributed to changes in the distribution of hourly labor income (Azevedo et al. 2013a).

**Figure 3.9. Percent Contributions of Proximate Determinants to Inequality Decline, Latin**

[20] For example, see Azevedo et al. (2013b); Cornia (2014a); de la Torre et al. (2012); López-Calva and Lustig (2010); and Lustig et al. (2016). Microsimulation techniques suggest that a more rapid fertility decline observed among poor houseolds over 1990–2012 reduced the Gini coefficient by between 0.7 points in Chile and 2.0 points in Peru (Badaracco 2014).

**America, circa 2000–10**




*Note:* The positive (negative) sign indicates an equalizing (unequalizing) effect of each determinant. The results shown are averages for 14 countries in the case of the nonparametric decomposition and 12 countries in the case of the parametric decomposition. The sum of the contributions of each determinant is, as expected, 100 percent.

*Sources:* Nonparametric results: Azevedo et al. (2013a); parametric results: Center for Distributional, Labor, and Social Studies, Universidad de La Plata, Argentina.

What explains the reduction in hourly labor income inequality? The available evidence suggests that a common factor in practically all countries was a fall in the returns to human capital, or, more precisely, in the relative returns to secondary and tertiary education.[21] Several authors underscore supply factors, such as an increase in the relative supply of workers with secondary and tertiary educational attainment, a result of the significant educational upgrading

[21] For example, see Azevedo et al. (2013b); Barros et al. (2010); Campos et al. (2014); Cornia (2014a); de la Torre et al. (2012); Ferreira et al. (2014); Gasparini and Cruces (2010); López-Calva and Lustig (2010).

that took place in the region during the 1990s.[22] Other authors have emphasized demand factors or a combination of both demand and supply factors (de la Torre 2013; Gasparini et al. 2011). In addition, the conditional cash transfer (CCT) programs *Bolsa Família* (Brazil) and *Prospera* (Mexico) reduced demand-side constraints by compensating poor households for schooling costs and for the opportunity cost of children's labor.

Ferreira et al. (2014) conclude that, in the case of Brazil, the rising minimum wage and a substantial reduction in gender, race, and spatial wage gaps explain the lion's share of the decline in earnings inequality. Cornia (2014a) finds that macroeconomic conditions and a rising minimum wage played a role in a number of countries.

The determinants of the decline in nonlabor income inequality include returns to capital (interest, profits, and rents), private transfers (for example, remittances), and public transfers (for instance, CCTs, and noncontributory pensions). Azevedo et al. (2013a) show that the contribution of changes in the returns to capital in Argentina, Brazil, and Mexico, for example, tended to be small and unequalizing. However, household surveys are known to underestimate income from capital. So, the unequalizing effect may have been larger than current estimates indicate. Esquivel et al. (2010) show that, in Mexico, remittances proved to be equalizing and became even more so in the 2000s because they closed the gap in household per capita incomes between rural and urban areas.

Azevedo et al. (2013a) find that, on average, government transfers account for 21 percent of overall inequality decline. Lustig and Pessino (2014) show that, in Argentina, the large expansion in noncontributory pensions was fundamental in the reduction in inequality in 2006–9.

[22] See Azevedo et al. (2013b); Cornia (2014a); López-Calva and Lustig (2010). Similar results were obtained for Argentina, Brazil, and Mexico (Barros et al. 2010; Campos et al. 2014; Esquivel et al. 2010; Gasparini and Cruces 2010).

In the case of Brazil, Barros et al. (2010) find that, in 2001–7, changes in the size, coverage, and distribution of public transfers accounted for 49 percent of the decline in inequality, while, in the case of Mexico, Esquivel et al. (2010) find that these factors accounted for 18 percent of the decline in inequality in 1996–2006.

### 6.6. Cross-cutting issues emanating from all or most regional trends

Inequality is widening in many countries. This is especially true in developed countries and in some quickly rising Asian economies. Meanwhile, inequality trends have been more mixed in other developing countries and in emerging economies. Some countries, especially in Latin America, are experiencing narrowing inequality. However, even in these countries, inequality in access to finance, education, and health care is still substantial, while labor market and social protection institutions remain underdeveloped.

#### 6.6.1. Access to credit and financial markets

The literature on financial development and inequality finds a link between better financial development and narrower inequality (Beck et al. 2007; Clarke et al. 2006). Lo Prete (2013) suggests that a key variable in determining whether the poor are able to benefit from improved access to financial markets is literacy. Agnello et al. (2012) show that the removal of directed credits, lowering high reserve requirements, and the development of a more efficient securities market represented ways to broaden access to credit and reduce inequality.

While the literature on financial development mainly focuses on developing countries, the literature on financial deregulation focuses more on developed countries. For example, Tandal and Waldenström (2016) find that Big Bang financial deregulation in Japan and the United Kingdom have led to an increase in top income shares. Beck et al. (2010) analyze an

intrastate branch banking reform in the United States that boosted competition in the banking sector. They show that the reform led to less income inequality by increasing the incomes of low-wage workers. So, whether financial deregulation increases or decreases inequality seems to depend on the specific policy change that is implemented. Another strand in the literature investigates the effect of asset price changes on inequality. For example, Adam and Tzamourani (2015) show that equity price increases lead to increases in wealth inequality in the euro area, while bond price increases leave wealth inequality largely unchanged.

### 6.6.2. Human capital formation and access to education and health care

Income inequality depends on the distribution of human capital across households. Inequality in education has declined significantly in most countries over the last 50 years or more. Especially in developing countries, this has been mostly driven by improvements in the access to human capital at the bottom of the income distribution, though large differences exist across regions (Castello-Climent and Domenech 2014). Most Latin American countries have substantially reduced the secondary-school enrollment gap (Cruces at al. 2014). Nonetheless, education outcomes remain much worse among disadvantaged groups (Dabla-Norris and Gradstein 2004). In some advanced economies, rising university costs have contributed to reduced access to education among the poor. In the United States, for instance, the cost of tertiary education has been growing much more quickly than the incomes of most households since 2001 (Federal Reserve 2014).

Inequality in health is a key determinant of educational and income inequality. In 2000–15, average health status improved universally, including in the poorest developing countries. Yet, inequality in health outcomes is still widespread in developing economies. For instance, in developing countries, the infant mortality rate is two times higher among poor households than

among rich households. Inequality in health care access is even more pronounced in developing countries (Gwatkin et al. 2007). However, even in advanced economies, income inequality is increasingly being reflected in lower life expectancy. This is particularly striking in the United States, where income today is a stronger predictor of life expectancy than it was a generation ago (Murray, Lopez, and Alvarado 2013).

### 6.6.3. Demographic change and inequality

Other determinants of inequality include demographic changes (such as in child and old-age dependency ratios) and patterns of household formation and composition. Using decomposition methods Jenkins (1995), Martin (2006) and Peichl et al. (2012) quantify how the trend toward smaller households has influenced the change in income distribution in the UK, US and Germany. While trends toward smaller household size have worsened income distribution, they only account for a small part of total rise in inequality (OECD 2008).

Cancian and Reed (1998, 1999) study the role of women's earnings in overall inequality and find an equalizing effect associated with increasing female labor force participation. Burtless (1999, 2009) and Schwartz (2010) find that the growing correlation between the earnings of husbands and wives and the rising share of single-person households have contributed to more inequality.

In low- and middle-income countries, the increase in life expectancy and the old-age dependency ratio tends to generate unequalizing effects. The lack of pension coverage is often a source of poverty and upward pressure on overall inequality, especially if the elderly live alone (ILO 2014). Means-tested and universal noncontributory pension schemes are, however, being expanded, including in Southern Africa and Latin America, and these have been shown to have a strong effect on poverty reduction and equality (Nino Zarazua et al. 2011). Rapid aging may also

represent a drag on economic growth and, indirectly, on inequality because of the large amount of private and public resources being allocated to pensions, health care, and the care of the elderly (Vos et al. 2008).

In developing countries, fertility decline often has initially a disequalizing effect as the rich and well-educated reduce their fertility first and are able to innvest much more in their fewer children. As fertility decline reaches poorer segments, it should be equalizing. As most of Sub-Saharan Africa in in early stages of fertility decline, it tends to be disequalizing (Canning et al. 2015), while in East Asia and South America it is far advanced and more equalizing. For example, Baradacco (2015) shows that the most rapid relative decline in the fertility rate and in the child dependency ratio among poor households over 1990–2012 reduced the Gini by 0.7 and 2.0 points, respectively, in Chile and Peru.

### 6.6.5. Taxation, social protection, and inequality

The progressivity of tax systems has declined in some advanced economies over the past few decades though it has improved in some developing regions, most notably Latin America (Cornia, Gomez Sabaini, and Martorano 2014; Lustig, forthcoming). In low and middle income countries, success in fiscal redistribution is driven primarily by redistributive efforts – the share of social spending in GDP in each country – and the extent to which transfers are targeted on the poor and direct taxes are targeted on the rich.[23]

Rising pre-tax income concentration at the top of the distribution in many advanced economies has coincided with declining top marginal tax rates. CCTs, unconditional cash transfers, and noncontributory social pensions have become an important policy tool for

[23] See analyses from Commitment to Equity Institute (http://www.commitmentoequity.org/) as well as the on-line version of this chapter for more details.

directing resources toward the lower end of the distribution in developing countries, but their redistributive impact varies widely across countries, reflecting differences in both the size and the progressivity of these transfers (IMF 2014a). Overall, Doerrenberg and Peichl (2014) show that that government policies are capable of reducing income inequality despite countervailing behavioural responses. The effect is stronger for social expenditure policies than for progressive taxation.

### 6.6.6. Labor markets

Skill-biased technological change and the resulting rise in the skill premium, together with the erosion in labor market institutions, have contributed to the widening inequality in both advanced and developing economies. This is because technological change can disproportionately raise the demand for capital and skilled labor relative to low-skilled and unskilled labor by eliminating many jobs through automation or upgrading the skill level required to attain or keep jobs (Acemoglu 1998; Card and Dinardo 2002). Indeed, technological advances have contributed the most to rising income inequality in OECD countries, accounting for nearly a third of the widening gap between the 90th and the 10th percentile earners over the last twenty-five years (OECD 2011). Evidence from developing economies shows a similar trend: a growing earnings gap between high- and low-skilled workers in many countries, despite a large rise in the supply of highly educated labor. Changes in the skill premium have been found to explain the rise or fall in earnings and income inequality in Asia, Latin America, and several African countries in the 1990s (Cogneau et al. 2007; Kanbur et al. 2014; Keifman and Maurizio 2014).

Globalization has played a smaller, but reinforcing role. This has led to a shrinking middle class in many advanced economies and some large emerging market economies (Autor,

Katz, and Kearney 2006). In developed countries, the most important driver has been the declining share of middle-skilled occupations relative to low- and high-skilled occupations (Autor, Kerr, and Kugler 2007; Goos, Manning, and Salomons 2009). In developing countries, this result has come about more because of income polarization (Duclos, Esteban, and Ray 2004; Fan, Kanbur, and Zhang 2011).

While evidence suggests that labor market regulations, such as the minimum wage, unionization, and social security contributions, tend to improve the income distribution, these institutions have been declining in many countries (Calderón and Chong 2009; OECD 2011). This has led to additional expansion in inequality.

Less well regulated labor markets, financial deepening, and technological progress have contributed to the rise in income inequality in many countries. Improvements in health and education outcomes at the low end of the distribution and the emergence of more noncontributory cash transfer programs have mitigated some of the increases or led to declines. Demographic shifts and changes in taxation have also affected inequality trends. The relative importance of these factors varies across groups of countries.

## 7. Deep drivers of inequality

### 7.1. History and the path dependence of inequality

The current level of income inequality is influenced by any asset inequality that may have prevailed in the past. This is especially so in developing countries that have not undergone a transition to democracy, carried out any asset redistribution, introduced progressive tax reforms, or broadened the access to land, education, and credit. Historically high asset concentration in some countries is determined by hierarchical social systems and the associated land

concentration (such as in much of continental Europe, India, and the United Kingdom), the dispossession by colonial rulers of the land and natural resources of indigenous populations (as in East Africa, southern Africa, and Latin America), and social and cultural values that involve discrimination against women and specific groups such as lower castes and religious and ethnic minorities.

For example, the substantial inequality experienced at independence in Latin America was the legacy of the high concentration of land and political power inherited from colonial times (Engerman and Sokoloff 2005). This led to the development of institutions that maintained the privileges of an agrarian and commercial oligarchy until well after World War II by facilitating the diversification of the land and mining assets of the oligarchs into industry and financial assets (Torche and Spilerman 2006). Control over the political system and the army ensured that such dominance continued until the emergence of democracy and wider access to education. Evidence from sub-Saharan Africa likewise supports the hypothesis of the path dependence of current inequality and of the relationship between current inequality and past property rights regimes over land with an important distinction between more egalitarian communal tenure systems and the highly unequal dualistic white settler regimes (Frankema, 2009).

A key issue is the persistence of such path dependence. Indeed, the relationship between the initial asset concentration and subsequent income inequality may be eroded by several factors, including structural transformation of the economy. The path dependence may not survive the withering away of the agricultural share in GDP. Its survival requires imperfect financial markets, such that only households with strong initial wealth are able to borrow and invest in new sectors. Its survival also requires that the initial conditions in asset inequality map

into low and unequally distributed human capital accumulation and that political democratization is postponed.

Yet, democracy (or revolution) alone is no guarantee that inequality will narrow, as is demonstrated in the case of the recent political liberalization in the former centrally planned economies of Europe, where inequality widened appreciably during the transition process (Gruen and Klasen 2012). This also holds for the liberalization in formerly authoritarian regimes in Latin America in the 1980s and 1990s. There, inequality remained wide and, in some cases, widened additionally in the 1980s and 1990s. It began to narrow only around 2000, and the narrowing was generally more substantial in countries run by center-left administrations that placed social justice at the core of electoral and governmental.

The path dependency hypothesis may break down also because of growing conflicts between old and new elites. History provides counterexamples to the thesis that a unified oligarchic interest creates a smooth pathway between agrarian and industrial asset inequality. The most notable of these counterexamples is the nineteenth-century debate in the United Kingdom over the Corn Laws that pitted the old agrarian elite against the new industrial interests, given that cheap food was a major determinant of industrial wages (Williamson 1990). Newly created industrial elites may find themselves sooner or later involved in a power struggle with the rural elite. In Chile, for instance, a peasant-capitalist alliance overcame agrarian elite opposition to land reform. Generally, a transformation in elites may weaken path dependence over time.

External factors may also affect the persistence of path dependence. Thus, Prado de la Escosura (2007) emphasizes that the gains in the international terms of trade experienced during the globalization of 1870–1914 in Latin America, which had become a major world supplier of

agricultural commodities, exacerbated the asset inequality that was a legacy of the colonial period. Indeed, globalization raised the returns to land that benefitted a tiny class of large landowners. But this also depends on the political orientation of governments. For example, while, over 1870–1914, the gains in the terms of trade exacerbated inequality, the period 2002–12 leads to an opposite conclusions because the distribution of the benefits of the recent gains in the terms of trade led to the region's increased capacity to tax land and mining rents and the establishment of new redistributive institutions (Cornia 2015).

### 7.2. Demography, fertility, and inequality

Demographic dynamics, including the dynamics of fertility, mortality, and migration, can affect overall economic performance, but also inequality. The impact of fertility on inequality depends on the stage of the demographic transition and on how fertility and incomes are related (Lam 1986). In countries that have not entered a demographic transition and are therefore characterized by high fertility and mortality rates, there is usually a positive relationship among income, social status, and fertility and an even stronger relationship among income, social status, and surviving children, leading to a generally weak relationship between fertility and inequality (Colleran et al. 2015; Vogl 2016). In countries in which the fertility rate has started to decline, the rate tends to decline first and more quickly among wealthier and more well educated groups, leading to a substantial fertility differential between these groups and poorer and less well educated groups. As a result of this dynamic, poorer households with many children cannot invest as intensively in each child because they are poorer and need to divide their smaller investments among more people (Lanjouw and Ravallion 1995). The large differential in investments in children between rich and poor households can lead to widening inequality

depending on the associated mechanisms (Cordobia, Liu, and Ripoll 2016; de la Croix and Doepke 2003; Kremer and Chen 2002; Vogl 2016).

Empirical evidence strongly supports the existence of the large fertility differential between richer and poorer households during a demographic transition (Chiavegatto and Kawachi 2015; de la Croix and Doepke 2003; Kremer and Chen 2002; Vogl 2016).

The models suggest that, as the demographic transition proceeds and reaches poorer households, inequality will narrow once more. An acceleration of this effect through, for example, efforts to broaden educational access among the poor could help reduce inequality more rapidly (Kremer and Chen 2002).

Most OECD countries and many emerging Asian economies have already reached the final stage in the demographic transition in which overall fertility rates are low and no longer differ much across the income distribution (Vogl 2016). In contrast, in most of Latin America and southern Africa and among poorer Asian countries, the fertility differential, though closing, is still sizable, thereby sustaining inequality. The situation in much of sub-Saharan Africa, especially Central, East, and West Africa, is described by overall high fertility rates and a sizable and, in some cases, still widening fertility differential that can put a break on economic performance and increase inequality. The fertility rate decline in these subregions is proceeding slowly and has stalled in some places, suggesting that the unfavorable inequality dynamics may play out over an extended period (Klasen 2016).

### 7.3. Links between economic and political inequality

Economic inequalities are likely to be expressed partly in the greater influence of the relatively economically privileged in the political system (see sections 3.2 and 3.3). This influence can lead to resistance to taxation, redistributive transfers, worker representation, and so

forth. The character of the state is determined considerably by such influence. This may be reflected in the internal and external actions of a government. The attitude of developed-country governments toward international redistributive obligations also appears also to have been appreciably shaped by such domestic factors. Governments with a more social democratic character often also adopt a more forward role in providing international development aid or otherwise undertaking to combat international inequalities directly. Strategic considerations may also be important in determining the magnitude and nature of development assistance. Similarly, the attitude of states toward other features of the international regime bearing on international inequalities – including loopholes in the international financial system enabling the outward flow of capital for purposes of tax avoidance or evasion – may also be shaped by self-interest, making it difficult to reach a straightforward analysis based on the nature of internal politics.[24]

### 7.4. The link between economic inequality and social stratification

Deep ties are likely between economic inequality and social stratification. It has long been understood that, in many societies, race, caste, regional origin, and other factors define the social experiences of people and influence their ability to develop and use productive capabilities in ways that are economically remunerative. Outright discrimination is crucial in limiting access to educational and employment opportunities. However, there may be more subtle mechanisms that revolve around aspirations. Thus, the lack of objective opportunities may lead to more restrained subjective appreciation of the objective opportunities that do exist or of the likelihood of succeeding in pursuing them because of discouragement or anxiety-induced poor

[24] See the work of James Boyce and Léonce Ndikumana (2001, 2012) on outward capital flows from sub-Saharan Africa.

performance.[25] Discrimination that is attached to attributes that are presumed based on class or other social constructs, particularly to phenotypic or physiognomically identifiable differences, such as aspects of race, may be among the most difficult types of discrimination to address through policies because they reflect deep-seated social attitudes. Moreover, such everyday attitudes are reproduced or reinforced by media representations and may be reflected in the operations of public institutions in ways that may be corrected through specific policies. This might include, for example, racial profiling by police, differential sentencing by the courts, differential admissions rates to educational institutions, and differential hiring rates.

### 7.5. Globalization and inequality

The last two decades have seen the emergence, consolidation, and diffusion of an economic paradigm that emphasizes domestic financial liberalization, the removal of barriers to international trade and financial flows, and technology transfer. While the free circulation of labor across borders is not part of this paradigm, the demographic imbalances existing in the world and the spread of information made possible by the information and communication technology revolution have increased formal and informal migrant flows substantially.

The diffusion of this influential paradigm and the extraordinary development of information and communication technology foster rapid economic integration. In 1980–2002, average import tariffs fell by 70 percent to 80 percent (Table 3.6). Likewise, capital accounts were liberalized substantially except in sub-Saharan Africa, South Asia, and the Asian economies in transition. Domestic financial liberalization – a precondition for the success of free capital flows – also recorded rapid progress. The world stock of migrants rose from 154.2

[25] On aspirations and economic development, see Appadurai (2004); Flechtner (2013, 2014, 2016); Ray (2016). On discrimination and anxiety, see Hoff (2012); Hoff and Pandey (2006).

million in 1990 to 244.0 million in 2015 (United Nations 2016). Of these, 138.0 million reside in advanced economies (mainly in Europe) and 75.0 million in Asia (especially the Middle East). Over 2000–15, there was an acceleration in South-North migration.

**Table 3.6. Policy Changes, Domestic and External Liberalization, 1982–2010**

| *Region* | *1982–90* | *1991–7* | *1998–2002* | *2002–10* |
|---|---|---|---|---|
| *Average import tariff* | | | | |
| South America | 40.0 | 19.0 | 12.2 | 10.6 |
| Central America and Mexico | 46.6 | 18.1 | 8.8 | 7.2 |
| Sub-Saharan Africa | 26.7 | 24.9 | 14.5 | 13.2 |
| Middle East and North Africa | 29.7 | 21.9 | 17.3 | 16.2 |
| South Asia | 62.9 | 52.9 | 20.8 | 14.9 |
| East Asia and Southeast Asia | 20.3 | 16.7 | 7.6 | 6.9 |
| Asian economies in transition | 44.5 | 38.9 | 15.5 | 12.6 |
| Eastern Europe and former Soviet Union | — | 11.0 | 9.0 | 6.0 |
| Advanced economies | 8.5 | 7.1 | 3.3 | 4.2 |
| *Kaopen index of capital account openness* | | | | |
| South America | −0.78 | −0.17 | 0.76 | 1.00 |
| Central America and Mexico | −0.84 | 0.29 | 1.18 | 1.67 |
| Sub-Saharan Africa | −0.91 | −0.82 | −0.59 | −0.56 |
| Middle East and North Africa | −0.64 | −0.35 | 0.02 | 0.36 |
| South Asia | −1.29 | −0.74 | −0.93 | −0.90 |
| East Asia and Southeast Asia | 0.85 | 0.96 | 0.50 | 0.57 |

| | | | | |
|---|---|---|---|---|
| Asian economies in transition | −1.73 | −1.31 | −1.07 | −1.00 |
| Eastern Europe and former Soviet Union | −1.84 | −0.53 | 0.01 | 0.65 |
| Advanced economies | 0.83 | 1.89 | 2.28 | 2.32 |
| *Frazer index of domestic financial liberalization* | | | | |
| South America | 5.1 | 6.8 | 6.9 | 7.7 |
| Central America and Mexico | 6.7 | 7.3 | 7.5 | 8.4 |
| Sub-Saharan Africa | 4.5 | 5.1 | 6.6 | 7.4 |
| Middle East and North Africa | 3.6 | 4.6 | 5.8 | 6.5 |
| South Asia | 4.7 | 5.6 | 6.4 | 7.4 |
| East Asia and Southeast Asia | 5.9 | 6.9 | 6.6 | 8.2 |
| Asian economies in transition | 0.0 | 2.9 | 4.6 | 8.0 |
| Eastern Europe and former Soviet Union | 0.5 | 3.2 | 7.4 | 8.7 |
| Advanced economies | 7.6 | 8.2 | 8.6 | 8.8 |

*Note:* Kaopen index of capital account openness: −2.5 for closure; +2.5 for complete openness. Frazer index of domestic financial liberalization: between 0 and 10; 10 = total liberalization.

*Source:* Cornia 2014.

### 7.5.1. Trade liberalization

As suggested by neoclassical trade theory, the rationale behind trade liberalization is that free trade leads to greater specialization in sectors that use more intensely the factors of production with which each country is endowed, and that this generates mutual growth benefits for all trading partners. In developing countries with a strong supply of unskilled labor, trade liberalization involves shifting production from nontradables and capital-intensive import

ubstitutes toward unskilled labor–intensive exports, thereby generating favorable distribution effects. In contrast, in the advanced countries specialized in the production of goods requiring more capital and skilled labor, inequality is expected to widened.

These predictions were validated in Europe and the United States during the trade liberalization of 1870–1914 and during the export drive of the Asian tigers (Wood 1994). Bourguignon and Morisson (1989) find similar results for 35 small and medium developing countries. Yet, an equally important literature reaches opposite conclusions. For instance, a meta-analysis of the empirical evidence found that trade liberalization generated adverse distributive effects (Koujianou-Goldberg and Pavcnik 2007). An analysis of 21 liberalization episodes over the 1980s and 1990s shows that inequality rose in thirteen cases, remained constant in six, and fell only in two (Taylor 2004). Indeed, as shown also by the case of Latin America and sub-Saharan Africa, trade liberalization has led to deindustrialization and the reprimarization of production (Cornia 2016; Ocampo 2012).

What other factors might explain the discrepancy between the theory and empirical evidence? First, developing countries often export goods that incorporate natural resources and the labor of semiskilled and skilled workers rather than much unskilled labor, such as mining and oil extraction. Land-intensive agricultural exports have equalizing effects only in the case of low land concentration.

Second, the advantages of trade liberalization are less evident in countries exporting raw materials, which are subject to large price variations (Erten and Ocampo 2012). If commodity prices fall, the ability of these countries to import goods for the leading sector falls, and employment and incomes decline.

Third, in middle-income countries, free trade may turn out to be unequalizing if exports are also liberalized in other countries that have more favorable factor endowments and production structures. The best example is offered by the decision of China and other low-wage East Asian economies to assign to labor-intensive exports the role of key growth driver. Their decision undoubtedly lowered the international price of labor-intensive goods, but also eroded the comparative advantages of the middle-income countries of Latin America and Southeast Asia relative to the developed countries. In addition and contrary to the findings of Wood (1994) on the first wave of the Asian tigers, the phenomenal growth and export performance of Bangladesh, China, Indonesia, and so on were accompanied by a rapid widening in domestic inequality because of a variety of factors, including wage suppression, growing dispersion between advanced regions integrated into world markets and more backward regions, imports of capital-intensive investment goods complementary to skilled labor, and rising capital share.

Fourth, inequality may widen if trade liberalization does not occur simultaneously among all trading partners. For instance, the developing countries exporting agricultural goods opened up to foreign imports and so recorded job losses in the formerly protected sector, but achieved unsatisfactory export growth because of their internal problems and persistent protectionism in the advanced countries.[26]

### 7.5.2. Capital account liberalization

Mainstream theory has maintained until recently that the liberalization of portfolio investments – that is, purchases of bonds, shares, and securities by nonresidents in local stock markets; foreign bank lending to domestic banks; borrowing abroad by domestic firms, families,

[26] See also Box 3.6 in the on-line version of this chapter.

and the state; and derivatives – raises investment, growth, employment, productivity, and equity in countries with low savings, but high rates of return on capital and an abundant supply of cheap labor. Subsequent analyses have shown, however, that such gains were illusory because growth did not accelerate, and instability increased (Prasad et al. 2003). There is now a consensus on the usefulness of capital controls.

Indeed, the evidence points to a consistent deterioration in income equality and growth prospects associated with the liberalization of portfolio inflows and outflows, particularly in countries with weak labour institutions and weak social safety nets. The discrepancies between mainstream theory and the evidence suggest the following: (1) Left to themselves, deregulated financial systems do not perform well owing to problems of incomplete information, markets, and contracts, herd behavior, pure panics, weak supervision, and asset price speculation. Much of the recent instability and recession, including the recession of 2008–13, derives from the deregulation of domestic and external financial transactions. (2) Large portfolio inflows can cause an appreciation of the real exchange rate, reduce employment and growth in the export sector, and encourage subcontracting and wage cuts in the tradable sector to preserve profit margins (Taylor 2004). (3) Portfolio investments are often directed not at agriculture and labor-intensive manufacturing, but at capital- and skill-intensive firms in finance, insurance, and real estate (Taylor 2004). (4) The disciplining effects accompanying the liberalization of the capital account have mostly had a deflationary impact by reducing tax revenue, public spending, and national income. (5) Bailouts of bankrupt financial institutions have involved transfers through taxes and inflation from poor nonparticipants in the financial sector to middle- and upper-income participants, including large depositors, big borrowers, and financial institutions (Honohan 2005). Overall, an empirical analysis of the distributional impact of neoliberal policies in Latin

America during the 1990s concludes that external financial liberalization was the component of the Washington Consensus package that had the strongest negative distributional impact (Behrman et al. 2000).

### 7.5.3. Technology transfer

Globalization has been accompanied by a rapid transfer of costly state-of-the-art technology to developing countries and an acceleration in technological change in the advanced economies. The skill-biased technical change hypothesis suggests that, in the industrialized countries, the new technologies generate a greater demand for skills and a more skewed distribution of earnings relative to technologies. Unless the educational system quickly provides an adequate supply of workers with new skills, the demand for and wages of unskilled workers will decline, while the demand for and the wages of skilled workers will rise more quickly than the supply of these workers. As a result, wage dispersion will increase in the sectors using the new technologies. Information technology also reduces the cost of monitoring unskilled workers and minimizes labor shirking, while lowering the wage premium needed to ensure the efficient performance of these workers. Especially in the service sector and in a few industrial branches, new technologies replace unskilled labor through physical capital, thereby pushing up the capital share and overall income concentration.

In developing countries, import liberalization has increased the access to labor-saving technologies produced in the West that are complementary to skilled labor, thus reducing the demand for unskilled labor, a change that has worsened income distribution. This negative short-term effect may be offset over the medium term by the benefits of more rapid industrial modernization.

### 7.5.4. Migration and migrant remittances

During the globalization of 1870–1914, when 60 million mostly unskilled workers migrated from the European periphery to the New World, migration reduced income inequality in Europe because the ratio of unskilled wages to farm rents rose following a drop in the labor supply deriving from the migration (Lindert and Williamson 2001). However, migration is now tending to widen inequality in the countries of origin because the unskilled poor are less likely to migrate than middle-class workers whose families are able to finance the high costs of informal international migration. Remittances are therefore generally received by households in the middle of the income distribution, often bypassing the people on the lowest rung. At the same time, the emigration of workers with rare skills may raise the wages of such workers in the countries of origin, leading to a rise in the wage premium and greater overall inequality. This is particularly true of the migration of highly skilled professionals – such as doctors and nurses from Ghana – that represents a clear case of an unequalizing drain of human resources.

Yet, there are discrepancies between theoretical predictions and the results of a review of the empirical literature. Docquier and Rapoport (2003), for instance, argue that standard theory does not provide conclusive evidence on whether international migration widened or narrowed economic inequality in the countries of origin. They suggest that migration may not be unequalizing in countries of origin if it is state sponsored or if large migrant networks emerge in the countries of destination, as have been observed in El Salvador and Mexico during the last two decades (Cornia 2014). Remittances may stimulate overall long-term growth in countries of origin by lessening the balance of payments constraint, permitting the import of capital goods, facilitating the formation of human capital because children remaining behind have a greater

chance of graduating from school, and allowing poorer households to acquire productive assets and complementary inputs (McCormick and Wahba 2001).

Overall, the evidence shows that remittances have a favorable effect on poverty, volatility, and current consumption, but little effect on the investment rate, school enrollment rates, and the long-term growth rate of GDP (IMF 2005). The effect of migration in the countries of destination is controversial. There is limited evidence that migrants displace low-skilled local workers in manual jobs. Rather, the evidence points to a replacement effect. There seems to be, however, an positive effect on the wages of skilled workers.

### 7.6. Inequality, knowledge, and policy

#### 7.6.1. Knowledge-based inequalities

Inequality is a multidimensional and multicausal phenomenon. Knowledge-based inequality is not new within or across countries. What is new is the recognition of knowledge, technology, and innovation as major causes of inequality.

One way of analyzing the type of causality that relates inequality to knowledge production and use is through the typology of social exclusion proposed by Sen (2000). Differentiating between active and passive, and constitutive and instrumental exclusion, four cells represent (1) active and constitutive exclusion, (2) active and instrumental exclusion, (3) passive and instrumental exclusion, and (4) passive and constitutive exclusion. Each of these social exclusion cells is connected to relative deprivation and relates to the type of knowledge that is produced and the way this knowledge is used and distributed. Cell one may be exemplified by the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the exclusion it implies in accessing basic medicines (Stiglitz 2007). Cell four reflects the

same type of problems from a passive perspective. In the realm of health care, for example, terms such as neglected disease or the 90/10 gap, coined by the World Health Organization, express a form of exclusion that is not actively pursued, but that nonetheless inhibits a great part of the world's population to benefit from better health offered by new knowledge. Knowledge-related exclusion in cell two can be exemplified by the possibilities in choosing people to hire for jobs, to gain access to insurance, to receive fellowships, or to be accepted at educational institutions based on a wealth of personal data, including intimate data on DNA. Cell three includes the more widely recognized type of social exclusion derived from the unequal capabilities among people, organizations, and even whole societies to produce and use modern knowledge to solve problems. Freeman (1992) coined the term voluntary underdevelopment to describe the systematic preference for importing technical solutions over the effort to provide technical solutions from within based on efforts to develop local capabilities in science, technology, and innovation. Inequality arises in these situations because of the small share of highly qualified people in total employment and the associated low wages and weak stimulus for personal investment in education.

Each cell represents a particular feature of the prevailing knowledge-based inequality that may arise between countries or within countries. Each cell reflects a specific type of power that is exercised through different actors and mechanisms over global or national regulations, over research and innovation agendas, and over economic structures. The intertwined manifestations of social exclusion hinder major progress in such an agenda unless a more systemic and global perspective is pursued. However, precisely because of the specific nature of the various types of knowledge-based inequalities, it is important to identify the characteristics of the power influencing more directly each type of exclusion as well as the actors able to build alternatives.

### 7.6.2. The production of knowledge and inequality

The nature of knowledge-based inequality is rooted partly in the kind of knowledge that is produced and partly in the knowledge that is not produced. Academic research agendas are molded by diverse influences internal and external to the academic world

"The prioritization of research tends to create huge pockets of undone science that result in the systematic nonexistence of selected fields of research" (Hess 2007, 22). However, external influence may have quite different meanings in peripheral countries and in knowledge-based and innovation-driven economies (de la Mothe and Paquet 1996). In the latter, terms such as academic capitalism describe the external influences that are considered more powerful than academic agendas (Slaughter and Rhodes 2004). Meanwhile, in the peripheral countries more often than not, the productive sector is marked by undone science that is characterized a lack of knowledge demand rather than a biased demand for knowledge.

Undone science may also be a consequence of forces that operate within academia. Researchers are workers within institutions who build their professional environment – postgraduate studies, tenure, and the other rungs on the academic ladder – following unspoken rules as well as quite explicit rules. The impact of the academic evaluation system on the science that is effectively carried out has been an object of close scrutiny (de Rijcke and Rushforth 2015; Hicks 2004; Martin and Whitley 2010).

## 8. Affecting inequality: the scope and limits of policy

### 8.1. National policy issues in addressing within-country inequality

By adopting the SDGs in September 2015, countries worldwide committed to making the world a fairer place. The SDGs include a new goal with respect to the previous Millennium

Development Goals, one that focuses explicitly on reducing inequality (SDG 10). As discussed in section 3, concerns about inequality have arisen out of notions of justice and fairness, but also because of the negative consequences that wide inequality has on other outcomes that are crucial to development and well-being (Rawls 1971). Substantial inequality can lead, for instance, to higher absolute poverty, lower economic growth, policies biased in favor of the rich, persistently low social mobility, fewer incentives for cooperation and coordination, political polarization, and the weakening of the social contract (Bourguignon 2003; Coleman 1974; Esteban and Ray 2006; Ostry et al. 2014; Stiglitz 2012; World Bank 2005, 2017).

Societies possess various means to affect inequality in opportunities and outcomes. While there are policies that seek to influence inequality directly, policies that have other aims, such as overall macroeconomic and fiscal policies aimed at achieving growth and stability, can also have important distributional consequences. The focus here is, first, on policy actions to influence inequality and, second, the distributional consequences of other policies.

As indicated by Lustig (forthcoming), some policy actions designed to reduce inequality need to focus on improving the conditions of the poor, the vulnerable, and the socially excluded, that is, on increasing the assets (particularly, human capital), the opportunities, and the living standards of those at the bottom of the social ladder (Atkinson 2015; Basu 2013; Lustig, forthcoming; World Bank 2001). A second set of policies are geared to supporting the growth and sustainability of a strong middle class (Atkinson 2015; Ferreira et al. 2013; Lustig, forthcoming). Given the large and, in many countries, increasing concentration of income and wealth at the top, a third set of policies are aimed at curbing the excesses of such concentration (Atkinson 2015; Lustig, forthcoming; Piketty 2014).

Actions need to be centered on leveling the playing field, setting boundaries on market outcomes, and redistributing income and wealth through taxes and transfers, including the provision of services. In all three instances, the power of the state (individually and through multilateral mechanisms) to redistribute assets, income, opportunities, and power through laws, regulations, and fiscal policy can be crucial (Atkinson 2015; Lustig, forthcoming). Policies that focus on the poor and the middle class must also include measures designed to protect the losers from the undesirable consequences of economic progress—such as labor being displaced by new technologies-- (Lustig 2000; Lustig, forthcoming). While globalization and technological change may promote higher rates of growth, improve the lot of the poor, and reduce between-country inequality, they may also generate significant dislocation and downward mobility among vast segments of the population. Development is always uneven and generates tensions and demands for the redistribution of resources and power (Ray 2016; World Bank 2017).

Policies aimed at changing the distribution of assets, such as inheritance laws, land reform, minimum inheritance regulations, antidiscrimination, and affirmative action, are likely to be controversial and face political obstacles. Governments need to reach collectively supported decisions on how to allocate the resources to reduce poverty in an efficient and equitable manner, while supporting a sustainable social contract.

### 8.1.1. Building assets, enhancing opportunities, and promoting social inclusion

Increasing the assets that individuals have, the ways they can make use of them, and the returns they obtain is a central aspect of improving the distribution of productive opportunities.

(Atkinson 2015; World Bank 2000/2001).[27] Policies can contribute to the redistribution of productive opportunities through the provision of public goods and services "before the market", or ex ante, as well as by enhancing access to markets. Policies can also contribute to the redistribution of income directly through the fiscal system of taxation and transfers (ex post redistribution). Improving the way that institutions function can have effects on the redistribution of opportunities and the reduction of inequality in outcomes. In particular, through, for example, the design of policies and the allocation of resources, the responsiveness of the system to the needs of actors who tend to be left out of the bargaining process can be enhanced to have an impact on current and intergenerational inequality.[28]

Expanding the human, physical, natural, and financial assets that poor people own or can use may be accomplished through various mechanisms, for example, land reform, programs to distribute to the population the shares from the privatization of public enterprises, and the reform of inheritance laws. One key way of leveling assets across a population involves establishing a minimum inheritance capital endowment that is paid to all individuals when they reach adulthood (Atkinson 2015). The provision of housing subsidies among low-income groups can also serve to provide the poor with an important asset. Efforts to reduce inequalities in access to education and training and to upgrade the skills of the poor are also key to enhancing critical assets. It is key to make it as easy as possible for the poor to improve nutrition, receive preventive healthcare, and keep their children in school. Interventions that might work include delivering preventive healthcare and education for free and even rewarding households for using

[27] Box 3.1 in the on-line version of this chapter, describes a framework, based on the assets approach, to organize the discussion around the types of redistribution instruments available to policy makers

[28] For syntheses of these ideas see, for example, the World Development Reports devoted to poverty, inequality and governance: World Bank 2001, 2006 and 2017, respectively.

these services (as conditional cash transfers do); setting up free chlorine dispensers next to water sources; rewarding parents for immunizing their children; distributing free deworming medicines and nutritional supplements to schoolchildren; and investing in water and sanitation infrastructure (Banerjee and Duflo 2011).

Building human capital begins within the household. The provision of information and access to reproductive health so that household members can make informed decisions about the desirable number of children and prevent unwanted teenage pregnancies are principal ingredients in human capital development (Azevedo et al. 2012; Banerjee and Duflo 2011). Human capital accumulation may also suffer if the infants and young children in poor households are malnourished. Crucial are early childhood intervention programs in health care and nutrition, for example, mother and child health programs and vaccination programs, as well as basic infrastructure investment in water supply and sanitation, electricity, and transportation because of the synergies among sound nutrition, health care, and people's ability to use new learning technologies. Ensuring that the poor have access to these services should be a key aspect of reforms in social service delivery (World Bank 2003). Improving service quality requires the participation of poor communities and households in choosing, implementing, and monitoring services to hold providers accountable. Community-based schemes to protect water resources and other elements of the natural environment should be supported.

Perhaps as important in building the human capital of the poor are programs that serve to increase the demand of households for health care and education services. Actions to boost demand include improvements in the quality and availability of social services and compensation of the poor through direct transfers for the associated costs of transportation, school materials, and so on as well as the opportunity costs of the participation of household members in school or

in health care facilities. They include giving parents additional incentives to invest in the education and health of their children. Evidence shows that unconditional cash transfers and CCTs linked to stay-in-school programs, human development programs, and so on can help increase the demand of households for education and health services among offspring (Fiszbein and Schady 2009). Through their short-term effects as well as their longer-term impacts, they can also contribute to reducing inequality, including gender inequality.[29]

Poor people tend to have less access to infrastructure and are more likely to experience the impact of environmental degradation (Banerjee and Duflo 2011; Hallegate et al. 2016; World Bank 2001). Thus, local efforts to improve living conditions, from investment in water and sanitation to neighborhood improvement programs and environmental clean-ups, can benefit especially the poor. Better housing, transportation, and service provision can enhance the quality of life, health, and productive opportunities of households directly. To the degree that investment raises the value of property and land (if ownership can be appropriately documented), it has the potential to boost household collateral and access to credit. The cost of such investment may be considered a direct transfer to the poor (World Bank 2000/2001).

Policies that promote access to market opportunities among the poor might involve the provision of infrastructure, such as roads to connect remote and underserved regions, programs to reduce crime and violence and thereby ensure a safe environment for living and working, expanding the access of households to technology, or reforms in land titling to facilitate the ability of households to use assets as collateral. They also might include addressing market failures more directly, such as in the credit market; and constraining discriminatory practices in

[29] For details on how cash transfers can improve gender equity, see Box 3.2 in the online version of this chapter.

the judiciary system or the labor market. Improving market access leads to an increase in the bargaining power of the poor (World Bank 2000/2001).

Idiosyncratic shocks such as illness, death of breadwinner, and unemployment as well as aggregate shocks such as economic crises, natural disasters, and epidemics can make the poor temporarily poorer. However, they can also generate poverty traps and dampen growth. To survive, the poor may pare their productive and human capital or stop investing in this resource. Access to subsidized forms of insurance can help the poor by replacing costly strategies –such as distressed sales of assets or borrowing at prohibitive interest rates--to mitigate the impact of adverse shocks and encouraging the use of more productive – but also more risky – technologies (Banerjee and Duflo). Safety nets can encourage the poor to save. Microcredit can help small businesses to survive, For aggregate shocks, coping successfully requires a mix of measures to deal with economy-wide risks and to help people address adverse shocks. The proper mechanisms can cushion the damage of crises on human capital development. These include arrangements to protect pro-poor public spending if austerity policies must be implemented. Rather than improvising after a crisis has occurred, countries need to be able to scale up social safety nets, such as temporary employment, early childhood programs, and cash transfer programs quickly (Lustig 2000; World Bank 2000/2001).

Gender inequality, a persistent values-based social inequity, requires specific attention. Even though gender gaps have been narrowing, unequal gender relations remain pervasive around the world. In nearly all countries, most women encounter disadvantages related to the control of material resources through marital, inheritance, property, and land tenure rights, which, in developing countries, are often remains conferred exclusively on men, and women also frequently face greater insecurity relative to men (Deere et al. 2013). The limited autonomy of

women can have important negative effects on children's education and health. Thus, in addition to normative concerns, improving gender equity can have instrumental benefits in poverty reduction. Progress has been achieved, such as in education and health, but there are still critical gaps. Approaches that integrate legal, political, and direct public action tend to be effective.

As discussed in section 7.4, weaknesses or strengths in social structures are associated with much of the dynamics of poverty generation or reduction. Exclusionary social structures, such as class stratification or gender divisions, limit upward mobility. These structures may involve explicit or implicit discrimination in access to housing and land based on ethnic, racial, religious, or sexual identity. Policies that support the participation of socially excluded individuals, including by fostering discussions on exclusionary practices, can help remove these obstacles. Affirmative action policies can help groups that face systematic discrimination. Forums that bring groups together can be helpful in mitigating fragmentation and guiding dissatisfaction away from social conflict and toward political processes. Tackling ethnic, racial, gender, or sexual bias in discriminatory laws and regulations and in the operation of the legal system is central to addressing inequality, as is promoting the representation of excluded groups in community and national organizations (World Bank 2000/2001). Because poor people lack the resources to access the legal system, measures such as legal aid and information dissemination are especially powerful for creating more inclusive and accountable legal systems. State action can also be essential to changing the social norms that contribute to the perpetuation of socially based inequalities.[30]

[30] For a discussion on how social norms can hinder policies designed to expand opportunities, see the synthesis in the World Development Report 2017 (World Bank 2017). Also, see Box 3.3 on shifting social norms in the online version of chapter 3.

Rooted in norms and networks, social capital is an important asset among individuals seeking to exit poverty. It can be promoted by supporting existing social networks and providing broader links to markets, institutions, and organizations. Enhancing the legal or regulatory institutional framework supporting groups that represent the interests of poor households may boost the potential of the associated social networks. Additionally, given that poorer households tend to organize locally, their ability to advocate for state, regional, national policies should also be enhanced.

To combat exploitative forms of child labor and discrimination and foster fair practices in labor markets, governments should adhere to the core labor standards set out in the International Labour Organization's Declaration on the Fundamental Principles and Rights at Work. These include freedom of association and the right to collective bargaining, the elimination of forced labor, the effective prevention of child labor, and the elimination of discrimination in employment and professional occupations.

Governments should design tax and transfer systems so that the incomes or consumption of the poor after taxes and transfers are not lower than their incomes or consumption before the fiscal interventions. Evidence shows that, although the combination of taxes and transfers is equalizing to varying degrees, the payments of the poor in direct taxes and, especially, consumption taxes surpass the cash transfers they receive, particularly in low- and lower-middle-income countries (Lustig 2016, 2018, forthcoming). Government spending on education and health should also support adequate coverage and the quality of basic services among the poor.

### 8.1.2. Building a strong and resilient middle class

The middle class flourishes in an environment of labor-intensive economic growth. Growth in jobs and labor incomes has two main sources: (1) the accumulation of resources, that

is, investment, and (2) efficiency, that is, how well resources are put to use, which is largely driven by technological innovation. Private investment can be promoted by reducing risk through stable fiscal and monetary policy, healthy financial systems, and a reliable and transparent business environment. It also requires a sound institutional environment in which rules are applied objectively and systematically and in which there are established incentives to tackle corruption, including the corruption associated with vested business interests, such as special dealing and kickbacks (World Bank 2017). Public investment, particularly in infrastructure, communication, and skills, complements private investment in the creation of productive opportunities and efficiency enhancement.

Microenterprises and small businesses face more risk of bureaucratic badgering and unequal treatment because the well connected are favored. Measures that reduce the sources of market failures can contribute to the effective participation of such enterprises in the market by, for example, promoting access to credit through financial deepening or by reducing the transaction costs of reaching international markets, such as through export fairs, enhanced access to technology, or specialized training. Institutional reforms, such as lowering restrictions on the informal sector, addressing land tenure, or enabling regulation that encourages smaller investments, can also contribute to providing a conducive business environment for these firms.

International markets offer important opportunities for job and income growth in agriculture, industry, and services. Most countries that have experienced major reductions in income poverty and expansions in the middle class have made use of international trade. But opening up to trade and investment can create losers as well as winners, and it yields substantial benefits only if countries have the infrastructure and institutions to underpin a strong supply response. Thus, the opening up needs to be well designed, with special attention to country

specifics and to institutional and other bottlenecks. The sequencing of policies should encourage job creation and manage job destruction. Explicit policies should offset the transitory costs among the groups that lose out as a result of globalization. The opening of the capital account has to be managed with utmost prudence and in step with domestic financial sector development to reduce the risk of high volatility in capital flows.

While globalization and technological progress appear to have reduced between-country inequality, their impact on within-country inequality has been unequalizing in many countries. Moreover, the associated forces have led to dislocation and downward mobility among significant segments of the middle class and the working poor. The benefits of globalization and technological progress have been disproportionately reaped, dramatically so in some cases, by those at the top of the social ladder. Raising the skill level of a labor force renders a country more able to benefit from globalization and technological progress. Indeed, the building of harmonious societies requires the introduction of drastic corrections in the outcomes markets produce. There is increasing evidence that markets do not and will not generate sufficient employment at a living wage for all (Atkinson 2015). Markets will continue to make the rich richer if left unchecked. Given this background, it is essential now more than ever for societies to implement and, in some cases, reintroduce boundaries on market outcomes.

The first boundary on market outcomes should be placed on employment. A key determinant of employment growth is the nature of technological change, whether labor intensive or labor displacing, and whether intensive in skilled labor or low-skilled labor. Even if feasible, it may not be desirable to direct technological change away from labor-saving technologies. After all, the latter are at the core of which allowed mankind to enjoy increasing and diverse forms of wellbeing. The problem is that, if the income derived from the capital used

to produce goods and services is not widely distributed, labor-saving technological change may leave vast portions of a population unemployed or underemployed, that is, working for fewer hours or in low wage jobs. To tackle this problem, countries should consider the implementation of some form of guaranteed workas proposed by Atkinson (2015, pp. 140-42).

A second boundary on market outcomes should be placed on wages. According to economic theory, supply and demand do not fully determine the market wage; they only place bounds that allow scope for bargaining over the division of the surplus. However, the bargaining process is not merely a matter of individuals acting isolated from one another. Trade unions and collective bargaining can be crucial in helping produce a fairer distribution of the surplus and a more equitable distribution of wages. Labor unions have been losing their grip (Acemoglu et al. 2001). Unionization rates have been declining in practically all countries. Governments should support union-friendly legislation that does not foster egregious inefficiency and, above all, clientelism and corrupt practices. Particularly important are the rules that govern collective bargaining and the resolution of labor disputes. Setting the minimum wage at levels corresponding to a living wage is also an important instrument in establishing a lower bound for the division of the surplus.

Successful welfare states rely on universal programs (Chapter 8). However, universal should not be equated with providing everybody the same lump-sum transfer (Lustig forthcoming). It means that everybody has the same right to the insurance aspect of universal welfare spending.[31] Thus, if one of the commitments of a welfare state is that all individuals

[31] For a discussion on the insurance components of the welfare state, see Barr (2012b).

should enjoy a minimum income, the insurance aspect implies that those individuals whose prefiscal income is less than the minimum, not the entire population, are entitled to receive transfers. Universalism means that every individual, whether rich or poor, should have access to free or affordable education, health care of acceptable quality, and social insurance to cope with idiosyncratic shocks, such as unemployment, illness, the death of a breadwinner, and so on. Universalism, however, is achieved over time. Today's most exemplary welfare states did not have universal programs from the start (Lindert 2004). Moreover, poor countries cannot be expected to provide universal coverage through all programs on day one given the limitations on their resource and institutional capacity. Nonetheless, to be politically sustainable and contribute to equalizing opportunities, the welfare state needs to award adequate social protection to all. It also needs to provide services of sufficient quality so that the middle class does not feel compelled to opt out.[32]

### 8.1.3. Curbing the excesses of income and wealth concentration at the top

Evidence of the substantial and, in many countries, growing concentration of income and wealth at the top have led to discussions about the imposition of boundaries on market outcomes among the rich. This consideration arises not only because more resources collected from the rich could be used to support the universal welfare state. It also arises from a belief that the excessive concentration is the result of political rent-seeking given that the incomes of the rich do not reflect the contributions of the rich to society and that the high incomes foster political and social instability.

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[32] For a discussion of the challenges faced to contend with fragmentation and exclusion in Latin America's social protection systems, see ECLAC (2014, 2015) and Sojo (2017). Also see Box 3.4 in the online version of chapter 3.

The high incomes and wealth at the top could be curbed along three main channels. The two most typical involve taxation: increase the progressivity of the tax system by applying high inheritance taxes and taxes on inter vivos gifts for the rich. The third measure is more unconventional: adopt a code of practice for pay. This is advocated by Atkinson (2015). The approach can be taken even further by punishing those who do not abide by the rule. For example, the city of Portland, Oregon, adopted, in December 2016, a tax penalty on corporations that pay their chief executives more than 100 times what they pay typical workers (Anderson 2016).

### 8.1.4. Macroeconomic policies for the reduction of poverty and inequality

Appropriate macroeconomic policies can facilitate the reduction of inequality and poverty under normal conditions and when countries are hit by external shocks. There is now a widespread consensus that macroeconomic policies should minimize the likelihood of crises triggered by external shocks, that short-term stabilization should not be contractionary and sustain the provision of essential public goods (Klasen 2004), and that higher than targeted inflation rates should be tolerated (Lustig 2000). The experience of the 1980s and 1990s in the developing countries and 2008–14 in the advanced economies shows that growth will remain elusive and that inequality will rise unless fiscal and monetary policy are countercyclical, the real exchange rate is stable and competitive, real interest rates are low, and the financial sector is adequately regulated.

*Measures to prevent macroeconomic crises*

Research suggests that the most unequalizing and destabilizing effect of recent policy reforms arose from the liberalization of portfolio flows and the poor regulation of the domestic

financial sector (Prasad et al. 2003; Taylor 2004, Honohan 2004). Several measures can be introduced to control portfolio inflows, including Chile's *encaje*, limiting the foreign indebtedness of domestic banks, sterilization, temporary capital controls (as in Colombia, Singapore, and Taiwan, China), or the closure of the capital account (China). Improvements in banking regulation and oversight are also important, as shown by Latin America in the 2000s (Rojas Suarez 2010).

A second key issue concerns the *ex-ante* choice of an exchange rate regime that minimizes the risk of over- and undershooting. With the exception of large countries and of small economies (where dollarization may work), a pro-poor macro policy must focus on introducing a stable and competitive real exchange rate (Cornia 2005). Rodrik (2007) finds that such approach was instrumental in kick-starting growth in several exporting countries.

Other measures to prevent crises involve stabilization funds and fiscal rules that sustain public finance from the fluctuation in the world demand and prices of the commodities exported by developing countries. As tax revenue and capital markets behave pro-cyclically, policy should encourage the creation of stabilization funds, as in the case of the Chilean copper fund that sets aside resources during bonanzas and transfers them back into the public budget during crises, thereby functioning as intertemporal self-insurance.

*Measures to be adopted if external crises cannot be avoided*

Counties can basically follow two adjustment approaches (Stiglitz 2002). The monetarist approach emphasizes the defense of the nominal exchange rate, high interest rate, and fiscal austerity to attract foreign capital to cover foreign deficits caused by macro-shocks. Its impact on inflation is modest, while that on inequality is generally unfavorable. The Keynesian alternative consists in devaluing the nominal exchange rate and in a fiscal expansion which involve an

increase in budget deficits and inflation, but also an increase in exports. Devaluation could also have adverse effects in countries with large dollar exposures. Given these different effects, the choice of the adjustment package may obey the 'least costly approach' principle. This compares the extent of output contraction (greater in the monetarist approach), inflation (higher in the Keynesian approach), changes in the current account balance (more favorable for the latter), the capital account balance (the opposite), and the distribution of bankruptcies and moral hazard, which affect most domestic firms in the monetary approach and foreign firms in the devaluation-based approach.

A countercyclical fiscal policy is key if crises cannot be avoided. Deficits should be tolerated during crisis years and reduced gradually as the economy recovers. There is no evidence that temporary deficits are costly, while sharp expenditure cuts have a short and long contractionary effect. Moreover, because tax revenue is endogenously determined by the level of output, a rapid reduction of the deficit involves a drop in revenue that leads to a new widening of the deficit. Adam and Bevan (2005) suggest that deficit reductions of up to 1.5 percent of GDP a year can help reestablish fiscal balance with a minimal impact on growth, while larger reductions hurt growth.

The standard monetary policy consists in achieving a one-digit inflation through the manipulation of the policy rate. Yet, the evidence compiled by Bruno, Easterly, and Stiglitz (1998) shows that reducing inflation below 40 percent does not lead to faster growth. Evidence also shows that the high interest rate needed to achieve single-digit inflation entails a high 'sacrifice ratio'. This point has been agreed by the IMF Institute which accepts that an inflation rate of 10 percent is acceptable in developing countries affected by longstanding structural

distortions. In view of all this, money supply must be accommodating, as happened in several Latin American countries during the 2008–9 crisis.

One way to stabilize the twin deficits consists in reducing the cost of servicing the domestic and international debt. Measures include automatic debt standstills, debt rescheduling, debt haircut and securitization (as in Greece in 2012–14), debt for development swaps, and debt defaults, repudiation, or cancellation. Debt cancellation under the Heavily Indebted Poor Countries Initiative had a beneficial effect in terms of inequality (Cornia 2016).

Expenditure cuts are typically introduced to reduce deficits, but this may reduce the provision of public goods needed for long-term growth. A more equitable solution is to increase progressive taxation and channel the resources of stabilization funds into the public budget. In the African and Central American countries with low tax–GDP ratios, raising taxation of the middle class and the rich would help stabilize the budget deficit and reduce inequality. South America followed such approach during the 2000s (Cornia et al 2014, Lustig et al. 2013).

The sectoral distribution of public spending cuts during adjustment significantly influences the well-being of the poor. Proportional cuts across sectors are easier to implement politically, but are not efficient as the rates of return of investments in health care, education, public works, and infrastructure rehabilitation are higher than in other sectors, while their benefits' incidence is progressive. The allocations to these sectors should thus be protected. In addition, public transfers to the poor ought to be increased to offset the impact of shocks and recessive stabilization. By 2010, around 800 million people worldwide already benefitted from such transfers.

### 8.2. International actions to support inequality change

So far, the focus has been on national policies to affect inequality. As shown throughout the chapter, national policies can have a substantial effect on inequality, and, in general, there is substantially more scope for national actors, compared with foreign or international actors, to affect within-country inequality. Nonetheless, initiatives can be taken in multilateral for a or by advanced nations bilaterally that affect inequality between countries by boosting growth in poorer countries, as well as support policies to affect inequality within countries. International organizations and advanced countries can contribute to improving the lot of the poor in developing countries through four main channels. First, richer nations can make capital available for poor countries through grants and long-term loans at concessional rates; reduce current official debt levels, such as through the Highly-Indebted Poor Countries Initiative; provide financial safety nets in the face of shocks; and supply direct bilateral aid.

Second, opening markets to agricultural products and promoting freer trade or extending preferential agreements can help boost developing-country exports, improve access to modern technology, and encourage private capital inflows.

Third, international policy coordination can be important in promoting resource mobilization in countries by unmasking tax evasion, tax avoidance, and illicit financial flows among wealthy individuals, multinational corporations, and criminal actors. Success in these ventures can improve the fiscal space for redistribution and also put a fair tax on excessive incomes at the top.

Fourth, multilateral institutions can assist countries in the design of and advocate for policies and resource allocations that target the poor more effectively, establish appropriate boundaries in market outcomes, and curb the excesses of income concentration and wealth

accumulation at the top. The specific role that aid can play in affecting within-country inequality is highlighted in box 3.1.

**Box 3.5. Can Aid Help Reduce Inequality?**

Foreign aid can help mitigate inequality within recipient countries if two conditions are met. Donors have to allocate aid in line with their rhetoric on pro-poor growth, targeting the most disadvantaged population groups. At the same time, authorities in recipient countries have to ensure that aid actually reaches the poor. Both conditions are likely to be violated at least to some extent. The literature shows that donors pursue a mix of motives, including developmental concerns and commercial and political self-interest (Hoeffler and Outram 2011). Likewise, aid may be used to buy the political support of the local elites, thereby favoring the rich over the poor. On the recipient side, aid may induce rent-seeking, which tends to be inequality-increasing as rents are captured by local elites (Angeles and Neanidis 2009; Reinikka and Svensson 2004).

The empirical evidence is limited and ambiguous. Herzer and Nunnenkamp (2012) suggest that aid exerts an inequality-increasing effect on income distribution. Chong et al. (2009) do not find a robust association between aid and inequality, while Shafiullah (2011) and Hirano and Otsube (2014) find that aid reduces income inequality. Hirano and Otsube suggest that the mixed results may be connected to the heterogeneity of impacts across aid sectors. Specifically, aid given to the social sector has the largest inequality-reducing effect. These results are in line with findings on the impact of social sector aid on development outcomes. Dreher et al. (2008) show that aid for education has increased primary school enrollment and completion rates, while Mishra and Newhouse (2009) show that aid for health has lowered infant mortality. Two recent studies on Malawi and Uganda corroborate these findings (De and Becker 2015; Odokonyero et al. 2015).

Incentive problems among both donors and recipients notwithstanding, the part of foreign aid dedicated to the social sector appears to be effective. Further improvements in targeting may be seen as a realistic next step toward increasing the inequality-reducing potential of foreign aid.

### 8.3. The political economy: governance, policy making, and implementation[33]

Despite their potential to boost productivity and growth and strengthen the social contract, governments often fail to adopt pro-equity policies. If they do, these policies often fail to reach the desired goal. Why? Part of the answer has to with the fact that, while the policies have the potential to increase efficiency, they may affect certain groups unfavorably, particularly in the short term.

Policy making occurs through a process whereby individuals and groups that possess different amounts of power interact within changing rules as they pursue what may be different interests. Actors who might be negatively affected by pro-equity policies in terms of rents, income, their ability to maintain influence, and so on may try to block the adoption or implementation of the policies. Potentially affected groups may attempt to undermine policies that seek land reform. Or public officials may undermine administrative reforms aimed at improving public services if the reforms promise to cut into the discretionary control of the officials over resources.

Entry barriers and the distribution of power among actors from policy makers, bureaucrats, civil society groups, and the private sector to individual citizens determine who gets to participate in the policy arena and whose voice is heard. The bargaining power that actors

[33] This section draws closely on World Bank (2017).

have emanates from an assortment of sources such as social norms, formal rules, control over resources, or the ability to mobilize others. In unequal societies, the capacity of various actors to influence decision making tends to be uneven as well, feeding back into inequality.

A common manifestation of power asymmetries is clientelism, whereby benefits are exchanged in return for political support, which can undermine the effectiveness of pro-equity policies. Clientelism occurs if the relationship between public officials and voters becomes distorted, such that, instead of a dynamic wherein public officials are the agents of voters (who can sanction agents), the former buy the latter's vote in exchange for (usually) short-term benefits. In other cases, public officials become responsive to groups, such as the providers of public services, who are key to their political survival. Favoring the interests of these groups can have detrimental effects on the delivery of key services such as education, health care, or infrastructure, as providers wield their influence, withholding effort (for example, through absenteeism) or engaging in low-quality provision. Another cornerstone of the effectiveness of pro-equity polities is the importance of cooperation, particularly the willingness of individuals to contribute to the funding of public goods. In the absence of credible systems of rewards and penalties, citizens may have incentives to behave opportunistically, enjoying public services without paying taxes. The perception that others are free riding weakens the incentives to comply. Other factors debilitate compliance. Actors excluded from the benefits of policies or those who receive low-quality services tend to be unwilling to contribute to the necessary funding. Lack of compliance undermines the social contract. Conversely, solving cooperation problems can contribute to the effectiveness of policies.

The policies that are optimal on paper, but that do not reflect political equilibriums can be inefficient to adopt and implement if there are powerful actors who gain from the status quo. In

these cases, second-best, but feasible policies may be preferable. Indeed, successful reforms often go beyond best practices, address incentives, and adapt to solve specific problems that are obstacles to development.

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