Mulugeta Woldegiorgis, Mesfin

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Journal of Social and Economic Development

Provided in Cooperation with:
Springer Nature

Suggested Citation: Mulugeta Woldegiorgis, Mesfin (2022) : Inequality, social protection policy, and inclusion: pertinent theories and empirical evidence, Journal of Social and Economic Development, ISSN 2199-6873, Springer India, New Delhi, Vol. 24, Iss. 2, pp. 241-265, https://doi.org/10.1007/s40847-022-00185-1

Journal of Social and Economic Development (2022) 24:241–265
https://doi.org/10.1007/s40847-022-00185-1

RESEARCH PAPER

Inequality, social protection policy, and inclusion: pertinent theories and empirical evidence

Mesfin Mulugeta Woldegiorgis[1]

Accepted: 10 April 2022 / Published online: 11 May 2022

Abstract
The available literature shows that there is a questionable direction of correlation between income inequality, redistribution policies, and economic prosperity. Meanwhile, there is also a striking claim that rising economic inequality is an immense concern. This paper, therefore, aims to summarize the antagonistic thoughts. Moreover, it presents a conceptual model and empirically measures the nexus of income inequality and social protection policy with inclusive development. The fixed effects regression of the panel dataset from 34 African countries reveals that income inequality is a negative driver but social redistribution policies are positive drivers of inclusive development in the long run. The control variables such as inflation, population growth rate, and carbon dioxide emissions stand against inclusion. However, the labour force participation rate, freedom score, life expectancy at birth, enrolment rate in secondary school and share of employment in industry show a positive correlation with inclusion.

Keywords Social security · Exclusion · Social justice · Equity · Inclusive · Ethical development

JEL Classification B55 · H50 · H55

Introduction

Rising economic inequality is a major source of concern in Africa and elsewhere (Stiglitz 2012; Acemoglu and Robinson 2012; United Nations 2016; WEF 2017; UNDP 2018). Thus, social protection schemes are often taken as remedies to redress the externalities of inequality. The protection schemes are policies and programs that are intended to reduce the vulnerability of the poor to hazards while also empowering them. Hence, the protective,

Mesfin Mulugeta Woldegiorgis is by now a Ph.D. scholar in economics at the Friedrich Schiller University of Jena, Germany.

✉ Mesfin Mulugeta Woldegiorgis
mesfinmulugetaw@gmail.com; mesfin.mulugeta.woldegiorgis@uni-jena.de

[1] Chair of Economic Policy Studies, Economics Department, University of Jena, Carl-Zeiss-Str. 3, 07743 Jena, Germany

promotive, and transformative roles of social protection have recently attracted the heightened consideration of governments and international civil societies (OECD 2019). The protection schemes have primarily three policy instruments: (1) labour market interventions to promote employment and the efficient functioning of labour markets; (2) social insurance or contributory schemes to mitigate risks associated with ill-health, disability, unemployment, and old age; and (3) social assistance, which incorporates government transfers to eligible deprived people. The second and third schemes are called "passive social spending," whereas the first is active (ibid.).

However, the in-depth nexus between inequality, social protection, and economic prosperity is complicated, indeterminate, and misleading (Arjona, et al. 2002). For instance, the OECD (2019) report underscores the value of comprehending social protection as an "engine of inclusive growth" from "inclusive development lens" (p. 3). The organization also claims "the economic impact of social protection investments remains overall poorly documented" and there is "complexity of measurement" (p. 21). True, a linear and simplistic relationship between social protection and equity, thereby inclusive development, is theoretically and practically inexistent (Rawls 1973; Feldstein and Poterba 1984; Young 1990; Midgley and Piachaud 2015; Barrientos 2013).

Apart from the mixed and inconclusive hitherto inferences, the main gap in the available literature is that most of the inferences are based on purely economic terms (particularly growth) and they do not show the whole picture of society and development. The inclusive development approach, however, captures not only economic but also social and political dimensions (Woldegiorgis 2020a). The other misapprehension in the existing literature is that most of the inferences claim that access to social protection in developing countries is limited due to the "unaffordability" of social programmes. Nevertheless, there are economically poor countries, including in Africa, where a significant portion of their population has access to social protection. This leads to the fundamental issue of policy choice and structural and institutional arrangements. The above premises are the motivation behind the current paper. Hence, the objectives of the current paper are the following:

1. To recapitulate germane theories and empirics, thereby sketching a conceptual framework which illustrates the transmission segments of social protection into inclusive development.
2. To identify the principal institutional and structural hurdles and empirically measure their role in the inclusive development of Africa.

The research questions are (1) What is the nexus of income inequality and social protection with an inclusive development? (2) Is income inequality a statistically significant hurdle for inclusive development? (3) Are social protection policies significant drivers of inclusion?

In fact, time-series data for social protection coverage and tax as a percentage of GDP is rarely accessible for the selected African countries. Thus, the effect of the variables is not controlled in the long-run empirical analysis. However, the African Development Bank reports the country policy and institutional assessment (CPIA) index for the social protection. Therefore, in the paper, the index is used as an alternative proxy for social protection in the long-run empirical analysis.

Given its limitations, the exclusive significance of this paper is that it adds to the global debate on social protection in three imperative ways. First, it summarizes the theoretical and empirical studies. Second, it encompasses a conceptual framework in different contexts which shows the transmission mechanism of social protection towards an inclusive

development. Third, it provides new empirical evidence on the impact of income inequality and social protection policies as drivers of inclusion. In this fashion, the paper promotes the notion of an egalitarian, cohesive, and inclusive society. Hence, it may help development policymakers and practitioners recognize the emerging issues in development such as equity, inclusion, and the role of social protection in their endeavours.

Hence, the remainder of this paper is ordered as follows. "Literature" section compiles conceptually pertinent theories and empirical literature about the effects of distributive social protection and heightened economic inequality on inclusive development. "Empirical model and data" section discusses data sources and methodology. Section four presents the empirical analysis. The last section concludes with policy implications and wraps up.

Literature

Competing theories of inequality, social policy and inclusion

The effect of greater inequality on economic growth is theoretically indeterminate and there are antagonistic arguments. One line of argument claims that inequality does not harm economic growth and might even promote it; therefore, social protection spending might daunt economic growth (Mirrlees 1971; Ajona et al. 2002, p. 8). The specific arguments are presented as follows. The rich have a higher "savings ratio" than the poor. Therefore, social redistribution programs retard lending and investment (Saint-Paul and Verdier 1993; Galor and Zeira 1993; Perotti 1994). Hence, economic growth might be hurt due to the subsequent jeopardy in the capital markets (Stiglitz 1969 as cited in Ajona et al. 2002). The other justification is that social protection benefits may hurt the economy if they discourage people from working and saving and raise unemployment wages (Feldstein and Poterba 1984). Social protection may also increase tax burdens that may reduce not only economic growth but also innovation (Mirrlees 1971). Moreover, voters and politicians might also politicize social protection programs without proper attention to economic activities (Lindbeck 1975, as cited in Ajona et al. 2002).

The second faction claims that inequality hurts economic growth and social protection heals it. For instance, Stiglitz (2012) already came clean that he was "mistaken" in his earlier publication. His later argument claims that inequality has earth-shattering "prices" that cause exclusions, political instabilities, and slow economic growth, even in advanced economies like the USA and Western Europe. According to the second faction, investors may not collect their mortgages because high inequality deteriorates the purchasing and pay-back capabilities of the poor, as poor families have no collateral assets, witnessed during the recent economic crisis. Accordingly, the heightened inequality may trigger political unrest, which may follow a radical shift in government policy and/or government per se.[1] Persson and Tabellini (1994) underscore that inequality hurts economic growth in such a

[1] According to Ajona et al. (2002, p. 9), rising income inequality may cause social and political unrest, which in turn adversely affects incentives for economic activity such as investment, and hence slows economic growth. The inequality may trigger a radical shift in government policy and even the hostile transition in the entire government. The consequences may also include confiscatory policies, such as uncompensated land reform. Inequality can also lead to tolerance of socially disruptive behaviour like corruption, looting, crime, strikes, riots, insurgency, separatist movements, and other moral hazards, as has recently happened, inter alia, in South Africa.

way that "[i]n a society where distributional conflict is more important, political decisions are likely to result in policies that allow less private appropriation and therefore less accumulation and less growth" (p. 600). A social protection policy and diligent implementation are therefore accommodating to manage sickness and unemployment as an insurance afforded by social protection, which fosters economic growth (Ahmad et al. 1991). Likewise, to harness the second demographic dividend, social protection as a policy instrument has been given greater attention in recent demographic studies (Mason et al. 2017). To put it in a nutshell, the literature in this line of thought claims that social protection plays a significant protective, promotive, and transformative role (OECD 2019).

The third group claims that social protection comprises both active and passive programs. As pinpointed above, the active programs are mainly labour market innervations to promote economic growth, whereas the passive social protections are mainly government transfers to vulnerable people. The third faction claims that social protection instruments may not directly hurt economic growth, but they may increase the tax burden on investors and discourage saving and employment, which may ultimately jeopardize economic growth to a greater extent (Ajona et al. 2002; OECD 2019).

Even though, in relative terms, the third argument looks the most plausible, the main deficiency of all of the factions is that the core of analysis is gross domestic product (GDP). Evaluating the success or failure of social protection policy instruments using solely traded goods and services is often claimed to be misleading because there are non-traded transformative effects of social protection policies such as social cohesion, business confidence, social justice, peace dividend, development sustainability, political stability, and governance quality that are central to just society and inclusive development. In this aspect, the following elucidation helps capture the pertinent dimensions:

Roles of economic redistribution in inclusion

Let alone the earliest philosophical foundations, in the post-war period, the relevance of economic equity and social protection has been well explained, especially since the 1970s, for instance, inter alia, in Rawls (1973), Miller (1977), Sen (1981), Young (1990) and Goulet (1996). It is also worthwhile to note that economic equity and social justice are situated at the heart of the inclusive development approach (Empter and Shupe 2012; Acemoglu and Robinson 2012; United Nations 2016; WEF 2017; UNDP 2018; Dörffel and Schuhmann 2022; Woldegiorgis 2020a, b). In the past, the protective roles of social protection and economic distribution were considered mostly from a moral philosophy point of view (Rawls 1973; Miller 1977; Sen 1981; Young 1990). This is because protective social spending is used to morally reach out exclusively to the marginalized groups within a society against economic shocks and poverty.

However, there is now a shift in perspective in recent literature, even if it is less branded. According to the new perspective, social protection plays a promotive role too, which is against those who refute social protection and income distribution as an engine of economic growth. Regarding the promotive role, the proponents justify their argument that social protection policies in action promote, inter alia, education, health, labour productivity at the workplace, income to the poor, and aggregate demand (inclusive economic growth) in the long term (Lindert 2004; Cherrier et al. 2013; Alderman and Yemtsov 2013). In its transformative role, through economic redistribution, social protection redresses, among others, social injustice, exclusion, and structural inequalities (Rawls 1973; Miller 1977; Sen 1981; Young 1990; Acemoglu and Robinson 2012; OECD 2019).

Table 1 First and second principles of Rawlsian social justice theory

First principle of justice	Second principle of justice	
"Equally open"	"Everyone's advantage"	
	Principle of efficiency	Difference principle
Equality as careers open to talents/ equality as equality of fair opportunity	System of natural, liberty, liberal equality	Natural aristocracy, *democratic* equality

The last two roles of social protection, namely the promotive and transformative roles, are now widely advocated by international civil society organizations such as UNDP, ILO, and UN.

As unjust social structures and unfair wealth distribution are often caused by institutional and structural motives, inequality should be treated with moral institutions (Rawls 1973; Miller 1977; Sen 1981; Young 1990; Acemoglu and Robinson 2012). Welfare is the subject that is integrated into economics to address morality because, in the subject, individual and social welfare are addressed (Sen 1981). A close investigation of the following theories helps comprehend the conceptual linkage of inequality and social protection with inclusion and their counterparts (inequality, social vulnerability, and exclusion).

Inclusion and the Rawls theory of justice as fairness

Rawls (1973, p. 4) uses the terms "theory of justice" and "justice as fairness" interchangeably, in that he has a conviction that a set of principles of justice and inclusion are needed in development endeavours. Furthermore, to be and not to be just manifests itself not only in laws, institutions, and social systems but also in people's attitudes and dispositions. These principles define the appropriate distribution of the benefits and burdens of social cooperation and assign rights and duties. Accordingly, Rawls' theory of justice has two fundamental principles of justice (Table 1).

In the table, the first principle stands for justice at an individual level, whereas the second is justice at a collective or social level. The first principle underscores that a person in a society should have an equal right to the most extensive scheme of equal basic liberties compatible with a similar scheme of liberties for others. The second principle underscores that the prevailing social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone's advantage, and (b) attached to positions and offices open to all (Rawls 1973, p. 53). The first one is also called "the principle of greatest equal liberty." The second principle of justice per se has two principles: "the principle of (fair) equality of opportunity" and "the difference principle". The principles are the foundational philosophies of inclusion (UN 2016). They are conceptually linked to the famous slogan of the German economist Ludwig Erhard, which claims 'prosperity for all," laying the foundations of the social market economy in Germany and Western Europe (Woldegiorgis 2020b).

Fair economic opportunity or equity is literally the economic dimension of inclusion, whereas the efficient allocation of social services to "everyone's advantage" is apparently a social dimension of inclusion. Similarly, democratic equality is a political dimension of inclusion. Together, economic, social, and political inclusion make up an inclusive

development. This is in fact in line with the ethical development approach of, inter alia, Goulet (1971).

According to Goulet, sustenance, self-esteem, and freedom are the three basic values of development that must be considered as morally right. Rawls underscores that an inclusive welfare state encourages the principle of "leaving nobody behind." In his own words.

> "[N]one should fall below a decent standard of life, and that all should receive certain protections against accident and misfortune—for example, unemployment compensation and medical care" (p. xv).

He stresses that the "redistribution of income serves this purpose" because redistribution policies in turn allow one to redress inheritable inequities of wealth incompatible with the fair value of political liberties and large disparities of income. In practice, however, the endeavour to ensure equality of opportunity is either insufficient or ineffective. Similarly, Rawls underlines that in a "just" or "inclusive" and "human" society, (1) everyone accepts and knows that the others accept the same principles of justice, and (2) the basic social institutions generally satisfy and they are generally known to satisfy these principles (ibid. pp. 4–5). In the meantime, if there is a serious violation of justice due to extractive institutions and misbehaviours, Rawls vigilantly justifies the significance of civil disobedience (pp. 319–335).

The entitlement or capability theory of justice

According to the Oxford English Dictionary, "entitlement" is defined as the endorsed right to have or to pursue something and the acceptance that someone is intrinsically deserving of freedoms and privileges or special treatment. Equally, Amartya Sen's entitlement approach in development (EAD) claims that every person is naturally advantaged and has the right to choose and relish their entitlements and that every person deserves privileges and special handling. Any form of deficiency and exclusion is due to the inability to exchange one's natural privilege (Sen 1981). Likewise, according to the World Bank (1991), the universal entitlements of human beings are shared standards of dignity, justice, and safety that all people should expect from their governments and societies.[2] Accordingly, social protection could be envisaged from this (welfare economics) point of view.

Just like Rawls and Young, Sen underscores the significance of ethical or moral evaluation of social settings, an individual's effective freedom ('capability'), and equity, or fair distribution of opportunities. According to him, the universal rights (entitlements) of human beings are shared standards of social dignity, democratic justice, and economic equity that all people should expect from states in terms of "being and doing" a natural entitlement.[3] Sen also claims that moral standards such as "principles of fairness" and

[2] "A person's capability to live a good life is a natural entitlement manifested in 'beings and doings' like "being" accepted, educated, employed, healthy, empowered or "doing" like doing well, in good work atmosphere, leadership etc. Accordingly, everybody is entitled to social protection." (See https://iep.utm.edu/sen-cap/. Accessed 26 June 2021).

[3] The capability approach of Amartya Sen is in line with the ethical virtues of, inter alia, Martha Nussbaum and John Rawls. For further information visit https://iep.utm.edu/sen-cap/ and https://iep.utm.edu/ge-capab/ (Accessed 13 August 2021). According to the philosophy of consequentialism, actions should be assessed only in terms of the goodness or badness of their consequences (ibid.). Accordingly, he favours "comprehensive consequentialism," which integrates the moral significance of both consequences and principles in the process. Consequentialism, ethics, and welfarism claim that all actions, policies, and all forms of institutions should be appraised based on their significant consequences for all humans. In particular, welfarism is the economic conception of welfare, and welfare is conceived as utility functions at an individual level, whereas social welfare is an aggregation of individual utilities.

"individual agency" should be introduced to the concept of consequentialism and any process to *include* the interests of those who are adversely affected by the action.

Empirics about the nexus of inequality, social policy and inclusion

Just like the theories discussed above, the empirical studies show an inconclusive, indeterminate, and mixed link between inequality, social policy, and inclusion. Terasawa and Gates (1998) claim that government transfer payments and social welfare programs are likely to reduce economic growth for both developed and developing countries. Their main argument is that the welfare programs reduce work incentives and encourage tax avoidance activities. To summarize, the line of literature claims that work disincentives and tax avoidances reduce economic growth. For instance, based on the claims of Gwartney et al. (1998), Hansson and Henrekson (1994), Nördstrom (1992), Perotti (1996), and Weede (1986). Ajona et al. (2002, pp. 32–39) came to the conclusion that public transfers have a robust negative impact on economic growth.

Similarly, after the empirical analysis of a large sample of unemployed individuals in the United States in 1976, Feldstein and Poterba (1984) also concluded that the upsurge in social protection, in the form of unemployment insurance, raises the reservation wages of the unemployed. Conversely, dipping into the net unemployment welfare benefits by lowering gross benefits or by taxing the benefits can meaningfully lower the average duration of unemployment. Conversely, Kula (2018) analysed the data between 1996 and 2015 for the USA. Kula indirectly contradicts Feldstein and Poterba by claiming that higher unemployment insurance improves health insurance coverage and health utilization, especially during recessions. Accordingly, the increase in social protection helps mitigate some of the negative health effects of job loss. On the other hand, Keefer and Knack (1995a) argue that social protection transfers have no significant effect on economic growth.

There are other empirical studies that justify the negative impact of inequality and the positive impact of social protection-related public transfers, especially on productive activities such as health, education, and employment, which have a direct role in economic growth (Alesina and Rodrik 1994; Persson and Tabellini 1994; Cashin 1994; Castles and Dowrick 1990; Keefer and Knack 1995b; Korpi 1985; Kristov et al. 1992; Landau 1985; Lindert 1996; McCallum and Blais 1987; Perotti 1994; as cited in Ajona et al. 2002, pp. 32–39).

Apart from the controversial findings above, the literature is confined to mainly advanced countries. Therefore, the validity of the claims might not always be justified, especially in developing countries like Africa. The reason is that if social protection programs are well designed, they can even reduce poverty, promote employment, investment, economic growth, wealth and income inequality. For instance, Omilola and Kaniki (2014) claim in black and white that social protection discourages unemployment in countries selected for their research in Africa in such a way that, for example, the productive safety net programme (PSNP) is the flagship social transfer programme in Ethiopia. It provides public works for adults with labour capacity and free direct transfers for those who are unable to perform physical labour due to illness, disability, age,

maternity, children, and the elderly. As a result, the PSNP is one of Ethiopia's exemplary social protection systems, with a proven track record of reducing poverty and inequality while fostering economic growth. Correspondingly, most of the social protection programs in other African countries are implemented by governments and international development partners that together provide nutrition, ensure access to education and health, and promote employment, gender inclusion, etc.

Furthermore, social protection programs are included in the constitutions of most African countries. For example, the Kenyan constitution in Article 43 guarantees all Kenyans their economic, social, and cultural rights, including rights to health, education, food, and decent livelihoods. The right to social security is explicitly stated, binding the state to "provide appropriate social security to persons who are unable to support themselves and their dependents." Article 41 of the Ethiopian constitution declares the right to social protection. Likewise, Sect. 27 (1) (c) of South Africa has a similar declaration (Goldblatt 2014). The same is true for the other African countries, including Lesotho, Mozambique, Namibia, Rwanda, etc. (Omilola and Kaniki 2014).

However, the social protection programs in African countries are neither the same nor equally effective (ibid.). In most countries, the percentage of social insurance coverage is minimal, not only due to a lack of capacity but also because of misguided policies and governance inefficiencies (ibid.). In most African countries, the direct social protection programmes encompass conditional and unconditional cash transfers, school feeding programmes, food aid, productivity-enhancing programmes (work programmes, subsidies targeting the most vulnerable groups). Public works programmes, subsidized microfinance and financial services, fee waivers, subsidies, and allowances have shown growth-promoting and poverty-reducing effects. The main challenge of African social protection programs is not the robustness of their poverty reduction and growth promotion effects, but rather their inadequacy, inconsistency, and administrative inefficiency (pp. 26–27).

In summary, the potential reasons for the conflicting empirical results are types of government transfers (Alesina and Rodrik 1994). Moreover, the available empirical studies are dominated by the nexus between economic growth, income inequality, and social protection. Meanwhile, economic growth, equity, and social protection are all important pillars of inclusive development (WEF 2017; Woldegiorgis 2020a, b; Dörffel and Schuhmann 2022). In this regard; however, there is very limited literature. Therefore, the exclusive merit of the current paper is that it summarizes the previous discourses, simulates them in a figurative conceptual framework, and extends the discourses, particularly to inclusiveness, by empirically attesting to social protection and equity as the core drivers of inclusion.

Conceptual frameworks

Due to their conceptual significance, the economic, social, and overall effects of active and passive social protection (policies) are deliberately presented in separate frameworks.

Figure 1 shows the mixed net economic dividend due to the potential negative effect of passive and the positive effect of active social expenditures. In line with this, Yue and Tianzhu (2012) argue that there is a need for an optimal balance between productive and non-productive public transfers so as to foster long-term economic growth.

However, Fig. 2 demonstrates the overall positive effect of both passive and active social expenditures on inclusive development.

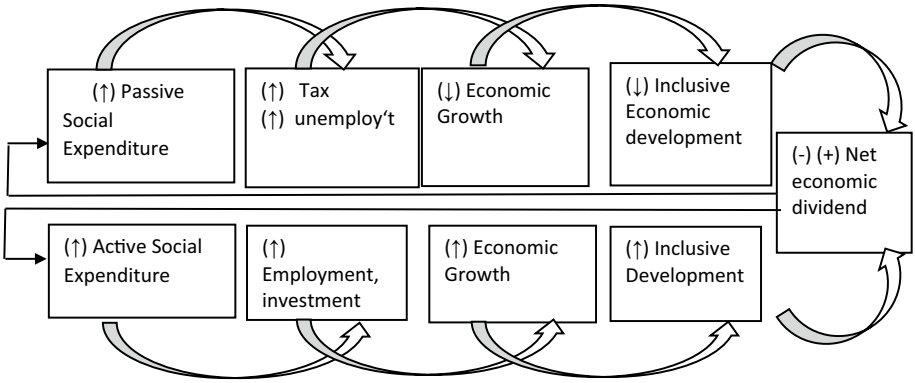


Fig. 1 Net economic dividend or social welfare. *Note*: ↑ (increase) ↓ (decrease). *Source*: plotted by the author based on the literature discussed above

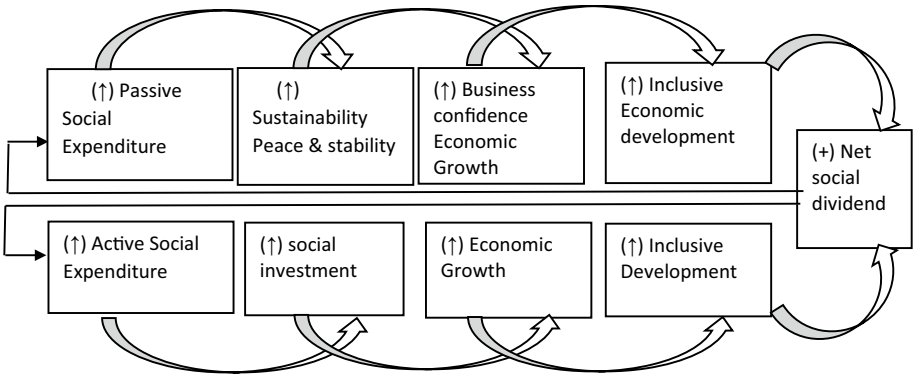


Fig. 2 Net economic dividend or social welfare. *Source*: plotted by the author based on the literature discussed above

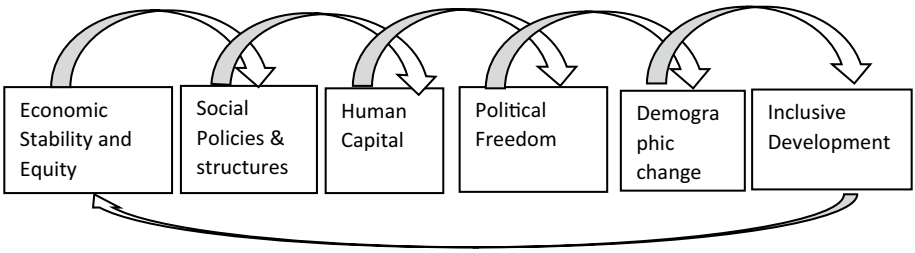


Fig. 3 Drivers of inclusive development based on the "politico-economic equilibrium". *Source*: plotted by the author based on Persson and Tabellini (1994)

As it is self-explanatory, Fig. 3 shows the significance of economic stability, economic redistribution (equity), (social) policies and structures, human capital, political freedom, and demographic change as the major drivers of inclusive development.

Empirical model and data

The model

The empirical analysis is based on the overlapping-generations model of economic growth articulated by Persson and Tabellini, which they call the "politico-economic equilibrium" model. In order to comply with the plagiarism policy and ethical standards, all the steps are not portrayed in this paper. Readers are therefore strongly encouraged to refer to Persson and Tabellini (1991) and Persson and Tabellini (1994, pp. 602–605) for the detailed steps of the model. In a bird's eye view, in the model construction, it is assumed non-altruistic (as opposed to egoistic) individuals live for two periods, which is in contrast to the Ramsey–Cass–Koopmans neoclassical growth model, in which individuals are infinitely-lived. Non-altruistic individual behaviour is crucial to bringing social protection policies into effect. In equilibrium, every individual is assumed to have the same preferences. The *i*th person is born in the $t-1$ period and lives until t. In both young and old age, economic well-being is represented by a utility function that is constrained by prospective budget constraints. The utility function is given by:

$$U_t^i = U\left(C_{t-1}^i, d_t^i\right) \tag{1}$$

$$C_{t+1}^i + k_t^i = y_{t-1}^i \tag{2a}$$

$$d_t^i = r[(1-\theta_t)k_t^i + \theta_t k_t] \tag{2b}$$

where ${C_{t-1}}^i$ is the consumption of an individual during $t-1$ age, i.e., a young age, whereas d_{t-1} represents the consumption during old age. The budget constraint is represented

$$y_{t-1}^i = (w + e^i)k_{t-1} \tag{3}$$

$$d_t^i = \frac{rD(r,\theta t)(1-\theta t)yit - 1 + \theta tkt}{D(r,\theta t) + r(1-\theta t)} \tag{4}$$

by: where y^i is the ith individual's income during young age, ${k^i}_t$ is the *average accumulation of asset* of the individual, r is the exogenous rate of return on that asset, and θ is a redistributive policy variable in that it takes from those who have invested more than the average and gives to those who have invested less than the average. The policy variable θ would be interpreted as a proportional *capital income tax*, which is used to afford equal lump-sum transfers (social protection) to *every old citizen*. θ could also represent the regulatory policy such as *"patent legislation"* or "*protection of property rights*". It is assumed that the average national income is a linear function of the *asset already accumulated*, $(w+r)k$, where wk and rk represent the *average wage to the young* and *profit to the old*, respectively. From (10) and the properties of the $G(w, r, \theta^*(w, r, e^{\mathrm{m}})$ and $\theta^*(w, r, e^{\mathrm{m}}))$functions derived above, we obtain some clear-cut and testable ceteris paribus implications:

$$C_{t-1}^i = \frac{r(1-\theta t)yit - 1 + \theta tkt}{D(r,\theta t) + r(1-\theta t)} \tag{5}$$

$$gt = G(w, r, \theta t) = \frac{k_t}{k_{t-1} - 1} = wD(r, \theta t)/[r + D(r, \theta t)] - 1 \tag{6}$$

$$\frac{\mathrm{d}Uit}{\mathrm{d}\theta} = Ud(.)\left[(kt - kit) + \theta t\frac{\mathrm{nd}kt}{\mathrm{d}\theta}\right]r \tag{7}$$

$$kt - kit = \frac{-D(.)kt - 1}{d\theta D(.) + r(1 - \theta t)}eit - 1 \tag{8}$$

Combining (7) and (8), the equilibrium policy θ^* is a function $\theta^*(w, r, e^{\mathrm{m}})$, defined implicitly by

$$-\frac{D(r, \theta)em}{d(r, \theta) + r(1 - \theta t)} + -\frac{\theta D_\theta(r, \theta)\frac{wr}{r+D(r,\theta)} = 0}{d(r, \theta) + r(1 - \theta t)} \tag{9}$$

$$g^* = G(w, r, \theta^*(w, r, em)) \tag{10}$$

Combining (9) and (6), the economic growth rate in the

$$dg^*/\mathrm{d}e^m = G_\theta\theta_e > 0 \tag{11}$$

$$\mathrm{d}g^*/\mathrm{d}w = G_w + G_\theta\theta_w > 0 \quad \text{if} \quad e^m < 0 \tag{12}$$

As shown in the last equation, a more equal distribution of income increases economic growth. In summary, the model reveals individuals' reactions to social protection policies during their active working age and old age. It is now clear that social protection programs are financed, inter alia, by taxes. A tax is levied by a democratically elected policymaker. Accordingly, the politico-economic model offers a detailed mathematical model of how saving or wealth is transferred from the young to the elderly segment of society and how social protection policies are voted by the poor and rich. Notably, the model demonstrates how economic equity leads to more growth, which is central to the inclusiveness debate (WEF 2017; Woldegiorgis 2020a, b; Dörffel and Schuhmann 2022).

Definition of variables, data sources and methods

Definition of variables

(a) Inclusive development

According to Rauniyar and Kanbur (2010, p. 457), "there is no universally agreed definition of inclusive development. The concept, however, is understood to refer to growth coupled with equal opportunities. " According to Sachs (2004a, b) cited in Gupta et al. (2015), the inclusive development concept was introduced as a way "to put stronger emphasis on the poorest and most marginalized". As cited in Clarke and Dercon (2009, p. 12), Lombe and Sherraden (2007, p. 3) claim "[i]nclusion is the realization that everyone has essential dignity and everyone has something to contribute." Although there are many

dimensions to inclusion, economic equity and social justice are pillars (WEF 2017; Woldegiorgis 2020a, b; Dörffel and Schuhmann 2022).

For instance, according to the Collins dictionary, "[s]ocial inclusion is the act of making all groups of people within a society feel valued and important; […] it is a practice by which efforts are made to ensure equal opportunities for all." This means inclusion is a practice of warranting equal access to development opportunities and resources for all people who might otherwise be excluded or marginalized. This is in line with the general principles of inclusive development, viz., leaving no one behind (United Nations 2016) and reaching the furthest behind first (UNDP 2018).

Gupta et al. (2015) also claim that "inclusive development" came to the academic literature for the first time in 1998, but it has become prominent since 2008 (p. 36). The authors distinguish between inclusive growth and inclusive development in such a way that the two concepts differ in their "structure and components." Inclusive growth is defined as "growth that not only creates new economic opportunities, but also one that ensures equal access to the opportunities created for all segments of society, particularly for the poor" (Ali and Son 2007, p. 12). According to Chatterjee (2005), inclusive growth focuses on the inclusive process of increasing per capita income through proactive policy towards productive and decent employment opportunities and the inclusion of all in access to opportunities.

According to Sachs (2004a, b), as cited in Gupta et al. (2015), the inclusive development approach asserts that economic growth may result in the exclusion of some people, the concentration of wealth, and segmented labour markets. Therefore, rather than focusing on economic growth, it calls for the exercise of civic and political rights and the distribution of amenities (e.g., health, education, infrastructure) with the view to enabling participation by all in these amenities. Woldegiorgis (2020a) also puts economic equity and social justice guided by moral political-economic institutions and policies at the centre of inclusion. Inclusion must be guided by ethical standards and deeper philosophical analysis so that the concept can be embodied in a society. Accordingly, all people have the right to be protected. This means inclusive development is a right-based approach, as clearly claimed by the entitlement theory, which can be used as an instrument to promote social cohesion and peace. Economic policies guided by inclusion are used not only to help the poor but also to transform economic growth and society, as well as to proactively combat potential political instability.

When it comes to measuring inclusive development, there is no universally accepted parameter that gauges inclusive development. The empirical works available are WEF's composite inclusive development indices (2017), Dörffel and Schuhmann (2022), and Woldegiorgis (2020a). In this paper, the inclusive development index (IDI) by the same author is used because the IDI of the WEF lacks long-term time-series data (see Woldegiorgis 2020a). In comparison to the multidimensional inclusive development index (MDI) by Dörffel and Schuhmann (2022), the IDI by Woldegiorgis (2020a) comprises more development indicators pertinent to developing countries, particularly in Africa. Otherwise, all of the three indices follow the same method of simulation.

(b) Social protection policies and inclusion

Given the opponents of social protection policies as explained above, the distributive paradigm underscores the significance of social policies in social justice and, thereby, inclusion. Miller (1977, p. 19) defines justice as "the manner in which benefits and burdens are distributed among persons, where such qualities and relationships can be investigated." Galston (1980, p. 5) also defines justice as rightful possession, as cited in Young (1990, p. 17). According to Young (1990, p. 16), the distributive paradigm defines social justice as

"the morally proper distribution of social benefits and burdens among society's members." She underscores that justice includes not only wealth, income, and other material resources but also nonmaterial social goods such as rights, opportunity, power, and self-respect. In this context, equity and justice coexist.

Young again underlines that "[m]ost theorists take it as given, then, that justice is about distributions" (ibid. p.18). Accordingly, she claims "the distributive paradigm is a tendency to conceive social justice and distribution as coextensive concepts" (ibid. p.18). It also fits the arguments of Rawls (1973, p. 9): "conception of justice as providing, in the first instance, a standard whereby the distributive aspects of the basic structure of society are to be assessed". Miller (1977) also underscores that justice is about structural issues such as prevailing social relations. Hence, the distributive paradigm is also pattern-oriented. However, Miller does not deny the significance of distributional justice, i.e., equity. Accordingly, he argues for a more egalitarian conception of justice (Young 1990, p. 17). On the other hand, the Marxists' socialist perspective, on the other hand, is one of radical egalitarian justice with a primary distributional focus. According to Young (1990, p. 18), Walzer (1983, pp. 10–13), recommends focusing on the social structures, institutions, and processes that determine injustice rather than the distributions. Young criticizes the earlier writers in the realm of distributional justice by claiming that they tend to ignore the unjust social structures and institutional factors that fundamentally determine material distributions (p. 18).

Social structures that undermine cultural diversity, ethnic identity, or the haves' partonic behaviour are unjust. In this regard, Rawls (1973) also has a similar stance as he argues that "one cannot, in general, assess a conception of justice by its distributive role alone; however, this role may be useful in identifying the notion of justice." Therefore, one must consider its wider connections, priorities, and institutions" (p. 6). Young also underscores that there are many public demands for justice that do not concern primarily the distribution of material goods rather than moral hazards such as labour exploitation, environmental pollution, manipulation of property rights, climate change, inflation, etc. They are caused by the economic activity of the rich, which adversely affects the poor. Thus, social justice must internalize all the effects. This leads to the conception of Rawls' "justice as fairness" and the following hypothesis:

Hypothesis not only material distribution but also social structure and institutions are the drivers of social justice and equity, thereby enabling inclusion.

(c) Income inequality and inclusion

Income inequality measures how unevenly income is distributed throughout a population. The Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. Therefore, the empirical model controls for income inequality by using the proxy Gini index. As explained above, regarding the impact of inequality on development, there are two antagonistic propositions. One of the propositions claims that inequality does not hurt development, but the other contradicts it. Those social protection policies (primarily public transfers and labour market regulations) that reduce the risk of becoming poor, assist the poor in managing additional risks, bridge jobs, and ensure at least a basic level of welfare for all people. This leads to the following hypothesis:

Hypothesis: social protection policies are significant positive drivers of inclusive development.

In the politico-equilibrium model, purely redistributive policies are induced the model.[4] In the model's economic dimension, redistributive policies are controlled by taxation as a percentage of GDP. Time-series data, for tax as a percentage of GDP is rarely accessible for African countries. Therefore, in the current empirical analysis, country policy and institutional assessment (CPIA) for social protection rating (1 = low to 6 = high) is considered separately as a proxy for institutional quality. The meta CPIA-social protection rating data is extracted from the African Development Bank database.

Methods

After an extensive review of the literature and presenting an analytical frameworks, the paper offers empirical evidence to justify that social protection and equity are drivers of inclusion. The panel dataset is compiled from the World Development Indicators of the World Bank. It is gathered for 34 African countries and analysed using STATA 14 software for the time period of 1990 to 2018. The sample countries and time period are chosen based on the availability of the CPIA social protection policy index. This is mainly because the actual time-series data on coverage of active and passive social protection is hardly accessible. Finally, following the econometric regression, a sensitivity analysis is presented to check the robustness of the regression.

Discussion of empirical analysis

This section incorporates three sub-sections. First, it presents the descriptive statistics, followed by econometric regression and a sensitivity test at the end.

Descriptive statistics

The following statistical summaries help better understand inclusion, its empirical roots, and its drivers.

According to the African Development Bank, social inclusion institutions are associated with gender equality, equity in public resource use, building human resources, social protection, and labour and environmental policies, besides regulations. As seen in the two graphs, social inclusion does not always imply multidimensional inclusion. Those countries with a higher social inclusion policy index might not necessarily have the highest overall dimensions of the inclusive development index. This might not only be due to the differences in the two concepts but also to the selected index parameters. Therefore, the two indices should not be contrasted. They should rather be understood separately because the first shows the quality of social policy and the latter shows the level of multidimensional inclusion. Mauritius, Seychelles, Eswatini, South Africa, Equatorial Guinea, and Ghana are among the best performing countries in terms of inclusion, perhaps due to their level of development and policy choice, whereas Niger, Chad, Burundi, Togo, Mozambique, and

[4] In purely redistributive policies, those who have invested more than the average give to those who have invested less than the average though social protection programs (Persson and Tabellini 1991, p. 4).

Source: plotted by the author based on data from the African Development Bank

Code	Country
MR	Mauritania
BJ	Benin
BF	Burkina
CI	Cote d'Ivoire
GM	Gambia
GH	Ghana
GN	Guinea
GW	Guinea-
LR	Liberia
ML	Mali
NE	Niger
SN	Senegal
SL	Sierra Leone
TG	Togo
BI	Burundi
KM	Comoros
DJ	Djibouti
ER	Eritrea
ET	Ethiopia
KE	Kenya
RW	Rwanda
SO	Somalia
SS	South Sudan
SD	Sudan
TZ	Tanzania
UG	Uganda
CM	Cameroon
CF	Central
TD	Chad
CD	Congo,
MG	Madagascar
LS	Lesotho
MW	Malawi
MZ	Mozambiqu
ST	Sao Tome &
ZM	Zambia
ZW	Zimbabwe

Fig. 4 CPIA social inclusion score

Liberia are among the list of inclusive countries. As it is shown in Fig. 4, the countries that are arguably at the top level of social inclusion policy are Rwanda, Ethiopia, and Kenya, whereas Somalia and South Sudan are located at the bottom (see Fig. 5; Table 2).

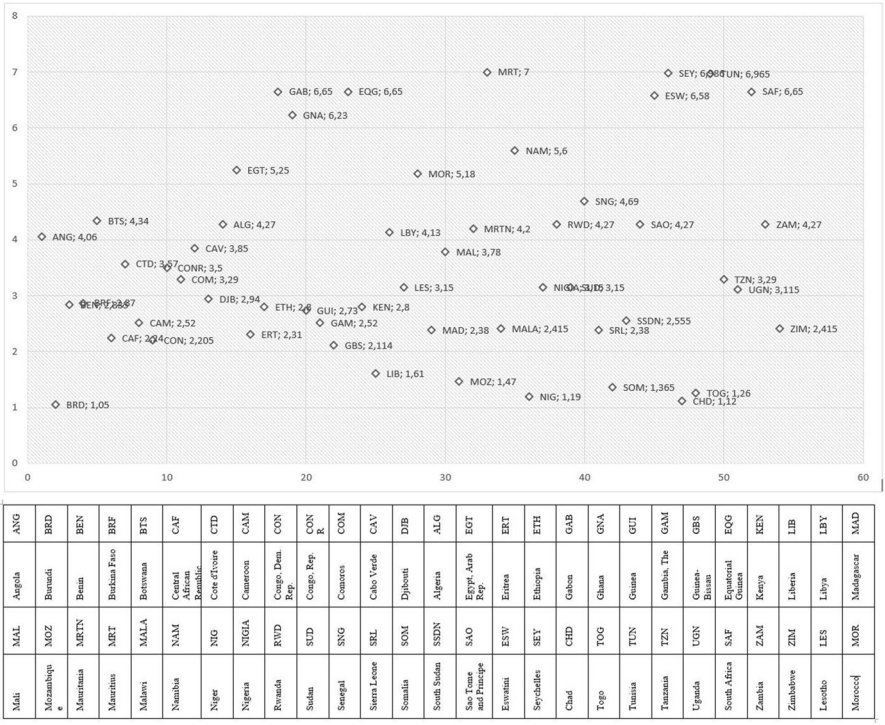
Figure 5 shows the comparison of the selected countries by their level of inclusive development index. The inclusive development index score ranges from 1 to 7 (WEF, 2017; Woldegiorgis 2020a; Dörffel & Schuhmann, 2022). Obviously, the selected countries vary in their inclusive development score. Accordingly, Mauritius, Seychelles, Botswana, Tunisia, South Africa, Gabon, Ghana, Equatorial Guinea, and Eswatini have higher scores. Whereas, Burundi, Niger, Somalia, Liberia, Mozambique, and Gambia have the lowest inclusive development score. Bear in mind, Figs. 4 and 5 present different indices. Figure 5 shows the multidimensional inclusive development index which includes economic, social, political, technological, intergenerational, and international inclusion sub-indices (Woldegiorgis, 2020a). Whereas, figure 4 portrays the country policy and institutional assessment (CPIA) social inclusion index. It should also be clear that CPIA represents the quality of policies and institutions. Whereas, inclusive development index (Fig. 5) presents the actual status of a country in inclusive development. The main intent of presenting the two figures together is to show the discrepancy of inclusive development index and CPIA social inclusion index.

Because of data availability, the number of observations varies for different variables. The other eye-catching figure is the minimum inclusiveness index for all African countries compared to other countries in the world (i.e., on average 26.8% for the last three decades). The income inequality represented by the average Gini coefficient is 43.3%, which is medium. Based on the data modelled by ILO, the above descriptive statistics table shows the average labour force participation rate is about 70% of the economically active labour force. It shows that nearly one-third of the active labour force has been wasted in the last three decades. The rate of population growth has been 2.6% in the last three decades, which is the highest compared to other major economic regions. The secondary education enrolment rate has been less than one-third. However, there has been significant positive change in the past decade.

Of the total employment, the employment rate in the industry sector has been very minimal, i.e., 10.5% in the last three decades. The inflation rate has also been high, at 10.5% per annum. Compared to the rest of the economic regions, carbon dioxide emissions in Africa are 0.15, which is relatively low as it is less than 0.2 kg (world average). However, countries are apparently being highly deprived because climate change is a global phenomenon.

Econometric regression result

The fixed effects regression of the data from the 34 African countries from the years 1990 to 2018 shows that social protection policy score is a statistically significant positive determinant of inclusive development. This implies that social protection is a robust positive driver of inclusion. As the score is measured by an index, it covers a wide range of policy intervention areas, including gender equality, equity of public resource use, human development, social protection, and environmental sustainability. Although indices are generally less preferable for econometric regression, as an alternative, the social protection policy index may be helpful to inform policymakers. As it is shown in the regression table, if social protection policy score increases by 1, inclusion increases by 10 and 12-fold in the



ANG	BRD	BEN	BRF	BTS	CAF	CTD	CAM	CON	CONR	COM	CAV	DJB	ALG	EGT	ERT	ETH	GAB	GNA	GUI	GAM	GBS	EQG	KEN	LIB	LBY	MAD
Angola	Burundi	Benin	Burkina Faso	Botswana	Central African Republic	Cote d'Ivoire	Cameroon	Congo, Dem. Rep.	Congo, Rep.	Comoros	Cabo Verde	Djibouti	Algeria	Egypt, Arab Rep.	Eritrea	Ethiopia	Gabon	Ghana	Guinea	Gambia, The	Guinea-Bissau	Equatorial Guinea	Kenya	Liberia	Libya	Madagascar
MAL	MOZ	MRTN	MRT	MALA	NAM	NIG	NIGIA	RWD	SUD	SNG	SRL	SOM	SSDN	SAO	ESW	SEY	CHD	TOG	TUN	TZN	UGN	SAF	ZAM	ZIM	LES	MOR
Mali	Mozambique	Mauritania	Mauritius	Malawi	Namibia	Niger	Nigeria	Rwanda	Sudan	Senegal	Sierra Leone	Somalia	South Sudan	Sao Tome and Principe	Eswatini	Seychelles	Chad	Togo	Tunisia	Tanzania	Uganda	South Africa	Zambia	Zimbabwe	Lesotho	Morocco

Fig. 5 Inclusive development index of Africa in 2018. *Source*: plotted by the author

first and next two models, respectively (see Table 3). The direction of correlation in the regression leads to impressive policy implications, whereas income inequality, proxied by the Gini coefficient, is the negative driver of inclusion in all the models. Therefore, measures that favour the poor to minimize inequality are also at the heart of an inclusive development approach. In fact, the two drivers of inclusion are not the only policy instruments. Therefore, in the panel data regression, the following variables are also controlled due to their relevance, as their interaction is meaningful with the drivers.

Accordingly, the freedom score has a positive effect on inclusion in the first two models. This affirms the significance of social justice in inclusion, at least as per the first and second principles of justice in Rawls' theory. This is primarily due to the Freedom House's definition of the freedom score, which includes political rights and civil liberties, i.e., exactly what Rawls meant by the first and second principles of justice. Hence, democratization is the means to economic equity and social justice, and thereby inclusion. The logic is clear: civil rights include the ensuring of people's physical and mental integrity, life, and safety; protection from discrimination against individual identity, whereas political rights include the right to participate in society, politics, the right to a fair trial, etc. If people have freedom of their will and as part of collective action, they can meaningfully stand for their economic, social, and political rights. Moreover, society protects them in the form of solidarity, i.e., social protection during bad days.

Carbon dioxide emissions, population growth, and the inflation rate all work against inclusive development, whereas labour force participation, social protection policy,

Table 2 Descriptive statistics

Variable	Obs	Mean	Std. Dev	Min	Max
Inclusive development index (%)	970	26.75624	13.77915	4.539453	91.22741
Gini index income	143	43.27413	6.914414	29.8	65.8
Labour force particpation rate	970	69.8536	11.65311	41.79	91.15
Rate of population growth	970	2.609302	0.9324525	− 6.766223	8.117929
CPIA social protection policy score	473	2.973573	0.5296698	1	4
Life expectancy at birth	966	54.22793	6.687093	26.172	70.17
Enrolment rate at secondary school	562	29.41873	15.64627	5.22076	89.33812
Freedom score	739	58.42625	16.49311	19	93
Percentage of employment in industry	939	10.48646	5.507804	1.86	31.55
CO2 emissions (kg per PPP $ of GDP)	903	0.1511053	0.1348878	0.0047239	1.063928
Inflation rate	871	10.48021	15.17973	− 2.814698	115.3981

Table 3 Panel data regression result

Inclusive development index (%)	Model 1	Model 2	Model 3
Gini index income	− .2592961 (0.4479574)	− .2352354 (.4637206)	− .2341049 (.4965711)
Labour force particpation rate	.0286217 (0.6897482)	.1470149 (.7360601)	.1472598 (.7808369)
Rate of population growth	− 5.856048 (11.31414)	− 5.521451 (11.68447)	− 5.512954 (12.40369)
CPIA social protection policy score	10.96984** (4.788782)	12.34172** (5.40043)	12.37811* (6.136395)
Life expectancy at birth	1.644687 (1.254578)	1.553881 (1.302325)	1.55391 (1.381302)
Enrollment rate at secondary school	.1692153 (0.3104758)	.1591237 (.3207074)	.1584926 (.3422907)
Freedom score	.7605582* (0.3582928)	.7544698* (.3697634)	.7551231 (.3941722)
Carbon dioxide as % GDP	− 42.16035 43.67895)	− 41.08504 (45.09429)	− 41.34854 (50.41408)
Percentage of employment in industry		.4005052 (.6367417)	.4027946 (.6894028)
Inflation rate			− .0041405 (.2504204)
Constant	− 119.4301 (82.01798)	− 132.1738 (87.00658)	− 132.5813 (93.18809)
R-squ within	0.7520	0.7624	0.7625

life expectancy (as a proxy for health sector performance), enrolment rate in secondary education (as an indicator of education sector performance), and percentage of employment in the industry sector (as a proxy for structural change) foster inclusion, secondary school enrolment rates are also highly correlated with technological inclusion (Woldegiorgis 2020a). The fixed effects regression also shows that the freedom score has a positive correlation. However, individual regression shows a negative correlation (see the scatter plot). By implication, it shows that freedom per se cannot guarantee inclusion alone. The specified models explain that about three-fourths of the within variation is explained by the

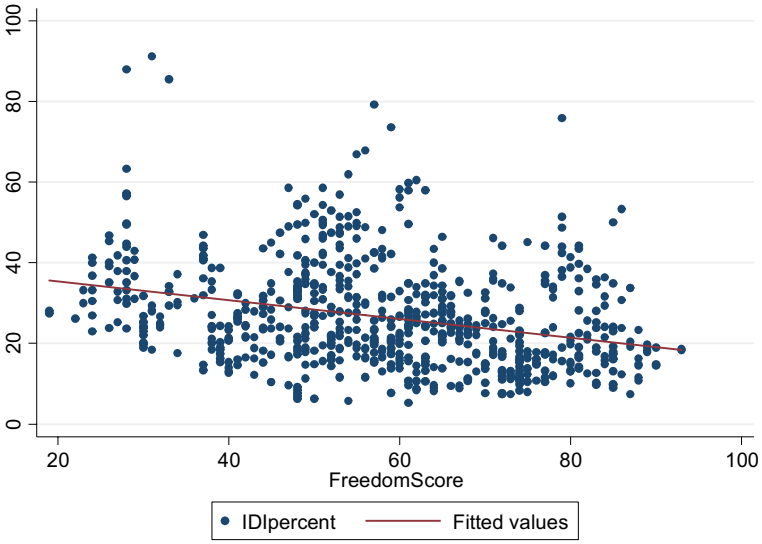


Fig. 6 scatter plot and line of best fit for inclusive development index and freedom score. *Source*: Plotted by the author

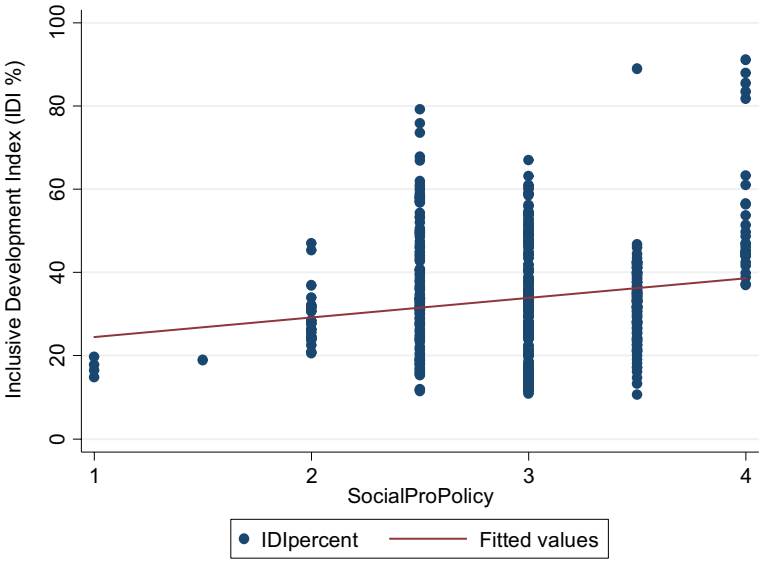


Fig. 7 scatter plot and line of best fit for inclusive development index and social protection policy. *Source*: Plotted by the author

models as R-square is 75.2% and 76.2%. Social inclusion policies plotted against the inclusive development index show a positive correlation (see Figs. 6, 7).

Sensitivity analysis

Is there endogeneity? Endogeneity ensues when a variable, observed or unobserved, which is not included in the models, is related to a variable incorporated into the model. However, using Fixed Effects Models addresses endogeneity (by assumption). Therefore, as inferences are made based on a fixed-effects model, there is minimal risk of endogeneity. Is there heteroskedasticity? The Modified Wald test for groupwise heteroskedasticity in the regression model shows that there is no heteroskedasticity, so there is no need to go for robust standard errors. To be specific, the null hypothesis is homoscedasticity, i.e., variance (σ^2) is equal for all individual countries, and the Modified Wald test for groupwise heteroskedasticity is not statistically significant. This shows there is a minimum risk of heteroskedasticity. Fixed Effects or Random Effects Estimation? The Hausman test (HT) is used to choose between a fixed effects estimator and a random-effects estimator. The HT is statistically significant for the null hypothesis, i.e., "difference in coefficients not systematic." Therefore, the fixed effects estimation is appropriate as it gives a consistent estimator. As the Breusch-Pagan test result yields a significant result, Hence, the OLS estimator should not be used. Accordingly, the fixed effects model is the appropriate model. Is there multi-collinearity? The correlation matrix shows that there is no high correlation among the variables (see Table 4). Therefore, the model is not suspicious of multicollinearity.

Conclusion and policy endorsement

In the available literature, there is an inconclusive direction of correlation between income inequality, social redistribution policies, and economic growth. Moreover, the literature only magnifies the protective role of social protection for the poor. The current paper, however, transcends the existing literature in many ways. First of all, the evaluation of the role of social protection merely from a tax, public finance, or economic growth point of view is found to be shallow and misleading. Therefore, the paper extends the discourse into an inclusive development approach in which social justice and economic equity are central. In this regard, the exclusive insight of this paper is manifold. First, it summarizes the relevance of the entitlement and social justice theories to the inclusive development notion. Accordingly, the entitlement theory of Amartya Sen claims that everybody in society has the right to be entitled to basic human needs. Likewise, the social justice theory of John Rawls underscores two principles that are relevant to the inclusive development approach. The first principle of justice is about "basic liberties". The second principle per se is composed of two notions, viz., "fair equality of opportunity" and "difference principle". According to the principles of justice, all people are entitled to basic needs ("liberties"), equal opportunities within a society and accepted identity (diversity) based on the "difference principle". The paper also bridges the two theories with the foundational principles of inclusion, namely "leaving no one behind" and "reaching the furthest behind first." The other virtue of this paper is that it brings the ethical development approach into the inclusion discourse.

Moreover, policymakers often stick to the protective role of social protection. The current paper, therefore, upholds the promotive and transformative roles of social protection too. Therefore, in the empirical analysis, the inclusive development index is used as a dependent variable, not gross domestic product, because the social protections have more

Table 4 Correlation matrix

	IDI	Gini coef	laborf~n	rpop	Social policy	lifeexp	Sec enrol	Freedom	emp	Co2	Inf
IDI	1										
Gini coefficient	−0.1127	1									
Labor force participation	−0.4783	0.3363	1								
Rate of population growth	−0.4375	−0.2324	0.2464	1							
Social policy score	0.1632	0.1016	0.3253	−0.0994	1						
Life expectancy at birth	0.5364	−0.235	−0.169	−0.2341	−0.0783	1					
Secondary school enrolment	0.388	0.1763	−0.3358	−0.5105	−0.1212	0.3025	1				
Freedom score	−0.2932	0.0884	0.1102	−0.1215	−0.1977	0.1154	−0.0733	1			
%Employment in Industry	0.4641	−0.1553	−0.5266	−0.1498	−0.1872	0.3588	0.3913	−0.3268	1		
co2 per GDP	0.1832	0.2001	−0.479	−0.3038	−0.1853	0.2072	0.4688	−0.3243	0.42	1	
Inflation rate	0.132	−0.1465	−0.1556	−0.3319	−0.0441	0.1616	0.134	0.196	−0.0691	−0.1259	1

than economic advantage. The virtue of the multidimensional inclusion concept is less thematised in the classical academic literature. Thus, this paper may humbly inspire further research and policy discourse.

No doubt, there is a striking claim that rising economic inequality is currently an immense concern. This paper, therefore, summarizes the antagonistic thoughts, models, and empirically proves the nexus between income inequality, social protection policy, and inclusive development in an argumentative way. As it is rarely easy to find time-series data on tax income for the selected African countries, its effect in inclusion could not be captured in the regression, although social expenditures have a theoretically robust association with tax. Moreover, time-series data on social expenditure is hardly available across the selected countries. These together show that the presented econometric specification has limitations. However, the social policy index is used instead, and impressive results are obtained.

The fixed effects regression of the panel dataset from 34 African countries reveals that income inequality is a negative driver of inclusion, whereas, social redistribution policies are positive drivers of inclusive development in the long run. Based on the empirics, the following policy implications could be drawn. In order to foster inclusion and development, actors should give critical attention to economic equity and social justice through improved social protection policies for those who are in need. Moreover, minimizing inflation, population growth, and carbon dioxide emissions are also relevant for inclusion. Similarly, increasing labour force participation, civil liberty and political freedom, expanding health sector investment, secondary school enrolment rate, and share of employment in industry sector are critical steps toward achieving a socially cohesive and inclusive society.

Apart from the empirics, the ultimate conclusion from the theoretical literature asserts that although active social protection schemes have a direct positive effect on economic growth, it is also worthwhile not to undermine the positive role that passive social protection spending plays in a society, for the fact that they have a positive impact, inter alia, on political stability, development sustainability, and business confidence. Accordingly, active and passive social protection must be a compulsory universal human right, as the United Nations Human Rights Declaration claims (United Nations 2015).[5]

Acknowledgements The author sincerely acknowledges the financial support of the Konrad Adenauer Foundation. The paper has been accepted to be presented at the annual meeting of the European Public Choice Society, to be held on April 11–14, 2022, at the University of Minho, Braga, Portugal.

Funding The funding for the Open Access is enabled and organized by Projekt DEAL. Whereas the Funding of the research was provided by Konrad-Adenauer-Stiftung (KAS) (Granted as a Ph.D. scholarship in social market program).

Declarations

Conflict of interest The author declares that the manuscript is original and has not been published elsewhere, and there is no conflict of interest.

[5] "Everyone, as a member of society, has the right to social security and is entitled to the realization, through national effort and international cooperation and in accordance with the organization and resources of each state, of the economic, social, and cultural rights indispensable for his dignity and the free development of his personality" (p. 46).

Article 25 claims: "Everyone has the right to a standard of living adequate for his or her own and his or her family's health and well-being, including food, clothing, housing, medical care, and necessary social services, as well as the right to security in the event of unemployment, sickness, disability, widowhood, old age, or other loss of livelihood due to circumstances beyond their control" (p. 46).

Ethical standards As the manuscript includes empirical findings, the author consents to providing the meta when it is required. The author also permits duplication and reproduction of the manuscript based on the ethical standards of JSED.

References

Acemoglu D, Robinson JA (2012) Why nations fail: the origin of power, prosperity, and poverty. Crown Publishing, New York

Ahmad E, Dreze J, Hills J, Sen AK (eds) (1991) Social Security in Developing Countries. Oxford University Press

Alderman H, Yemtsov R (2013) How can safety nets contribute to economic growth? World Bank Policy research working paper no. 6437. SSRN. Retrieved January 4, 2021, from https://ssrn.com/abstract=2262173

Alesina A, Rodrik D (1994) Distributive politics and economic growth. Quart J Econ 109(2):465–490. https://doi.org/10.2307/2118470

Ali I, Son HH (2007) Defining and measuring inclusive growth: application to the Philippines. ERD working paper series no. 98. ADB economics working paper series, Asian Development Bank (ADB). http://hdl.handle.net/10419/109292

Ali I, Zhuang J (2007) Inclusive growth toward a prosperous Asia: policy implications. ERD working paper series no. 97. Economics and Research Department of the Asian Development Bank. http://hdl.handle.net/11540/1858

Arjona R, Ladaique M, Pearson M (2002) Social protection and growth. Economic Studies No. 35, 2002/2, OECD. https://doi.org/10.1787/16097491

Barrientos A (2013) Social assistance in developing countries. Cambridge University Press

Cashin P (1994) Government spending, taxes and economic growth. IMF working paper WP/94/92. International Monetary Fund. https://doi.org/10.2139/ssrn.883830

Castles FG, Dowrick S (1990) The impact of government spending levels on medium-term economic growth in the OECD, 1960–85. J Theor Polit 2:173–204

Chatterjee S (2005) Poverty reduction strategies—lessons from the Asian and Pacific region on inclusive development. Asian Dev Rev 22(1):12–44

Cherrier C, Gassmann F, Mora AM, Mohnen P (2013) Making the investment case for social protection: methodological challenges with lessons learnt from a recent study in Cambodia. Working paper 2013-06. UNICEF Office of Research

Clarke D, Dercon S (2009) Insurance, credit and safety nets for the poor in a world of risk. DESA working paper no. 81(ST/ESA/2009/DWP/81). Economic and Social Affairs

Dörffel C, Schuhmann S (2022) What is inclusive development? Introducing the multidimensional inclusiveness index. Soc Indic Res. https://doi.org/10.1007/s11205-021-02860-y

Draper P, Freytag A, Dörffel C, Schuhmann S (2019) Trade, inclusive development, and the global order. Oxford Univ Press Behalf Munk School Rotman School Manag 4(1):30–49. https://doi.org/10.1093/global/guz001

Empter S, Shupe C (2012) Index of modern social market economies: explorative study. Bertelsmann Stiftung, Gütersloh

Feldstein M, Poterba J (1984) Unemployment insurance and reservation wages. J Public Econ 23(1–2):141–167. https://doi.org/10.1016/0047-2727(84)90070-7

Galor O, Zeira J (1993) Income Distribution and Macroeconomics. Rev Econ Stud 60:35–52. https://doi.org/10.2307/2297811

Galston W (1980) Justice and the human good. University of Chicago Press

Goldblatt B (2014) Social security in south Africa: a gender and human rights analysis. Law Politics Afr Asia Latin Am 47(1):22–42
Goulet D (1971) The cruel choice. Atheneum
Goulet D (1996) A new discipline: development ethics. The Helen Kellogg Institute for International Studies
Gupta J, Pouw N, Ros-Tonen M (2015) Towards an elaborated theory of inclusive development. Eur J Dev Res 27:541–559. https://doi.org/10.1057/ejdr.2015.30
Gwartney J, Lawson R, Holcombe RG (1998) The size and functions of government and economic growth. Joint Economic Committee of U.S. Congress
Hansson P, Henrekson M (1994) A new framework for testing the effect of government spending on growth and productivity. Public Choice 81:381–401
Keefer, P. & Knack, S. (1995a). *Polarization, property rights and the links between inequality and growth*. World Bank.
Keefer P, Knack S (1995b) Institutions and economic performance: cross-country tests using alternative institutional measures. Econ Politics 7:207–227
Korpi W (1985) Economic growth and the welfare system: leaky bucket or irrigation system?". Eur Sociol Rev 1:97–118
Kristov L, Lindert P, Mcclelland R (1992) Pressure groups and redistribution. J Public Econ 48(2):135–163
Kula E (2018) Quantifying the benefits of social insurance: unemployment insurance and health. Working paper 24766. National Bureau of Economic Research. http://www.nber.org/papers/w24766
Landau DL (1985) Government expenditure and economic growth in the developed countries: 1952–1976. Public Choice 4:459–477
Lindbeck A (1975) Inequality and redistribution policy issues (principles and Swedish experience), in education, inequality and life chances. Institute for International Economic Studies. https://nla.gov.au/nla.cat-vn771436
Lindert PH (1996) What limits social spending? Explor Econ Hist 33:1–34. https://doi.org/10.1006/exeh.1996.0001
Lindert PH (2004) Growing public: social spending and economic growth since the eighteenth century, vol 2. Cambridge University Press, Cambridge. https://doi.org/10.1017/S0212610900011873
Lombe M, Sherraden M (2007) Effects of participating in an asset-building intervention on social inclusion. CSD working paper no. 07-02. Washington University, Center for Social Development. https://doi.org/10.7936/K77H1J5T
Mason A, Lee R, Abrigo M, Lee SH (2017) Support ratios and demographic dividends: estimates for the world. Technical paper no. 2017/1, United Nations Department of Economic and Social Affairs Population Division. https://doi.org/10.1162/adev_a_00157
Mccallum J, Blais A (1987) Government, special interest groups and economic growth. Public Choice 54:3–18. https://doi.org/10.1007/BF00123801
Midgley J, Piachaud D (2015) Social protection, economic growth and social change goals, issues and trajectories in China, India, Brazil and South Africa. Soc Policy Adm 49(7):966–967
Miller D (1977) Social justice. J Soc Policy 6(2):217–220. https://doi.org/10.1017/S0047279400005195
Mirrlees JA (1971) An exploration into the theory of optimum income taxation. Rev Econ Stud 38(114):175–208. https://doi.org/10.2307/2296779
Nördstrom H (1992) Studies in trade policy and economic growth. Monograph no. 30. Institute for International Economic Studies
OECD (2019) Can social protection be an engine for inclusive growth? OECD Publ Dev Centre Stud. https://doi.org/10.1787/19900295
Omilola B, Kaniki S (2014) Social protection in Africa: a review of potential contribution and impact on poverty reduction. United Nations Development Program. https://doi.org/10.13140/RG.2.2.12233.29284
Perotti R (1994) Income distribution and investment. Eur Econ Rev 38:827–835. https://doi.org/10.1016/0014-2921(94)90119-8
Perotti R (1996) Growth, income distribution and democracy: what the data say. J Econ Growth 1(2):149–187. https://doi.org/10.1007/BF00138861
Persson T, Tabellini G (1991) Is inequality harmful for growth? Theory and evidence. NBER working paper 3599/1991. National Bureau of Ecoomic Research. https://doi.org/10.3386/w3599
Persson T, Tabellini G (1994) Is Inequality harmful for growth? Am Econ Rev 84(3):600–621
Rauniyar G, Kanbur R (2010) Inclusive growth and inclusive development: a review and synthesis of Asian Development Bank literature. J Asia Pac Econ 15(4):455–469. https://doi.org/10.1080/13547860.2010.517680
Rawls J (1973) A theory of justice. Am J Jurisprud 18(1):198–205. https://doi.org/10.1093/ajj/18.1.198

Sachs I (2004a) From poverty trap to inclusive development in LDCs. Econ Polit Wkl 39(18):1802–1811. https://doi.org/10.2307/4414963
Sachs I (2004b) Inclusive development strategy in an era of globalization. Working paper no. 35. International Labour Organization. https://doi.org/10.2139/ssrn.908233
Saint-Paul G, Verdier T (1993) Education, democracy, and growth. J Dev Econ 42(2):399–407
Sen A (1981) Poverty and famines: an essay on entitlement and deprivation. Clarendon Press, Oxford
Stiglitz JE (1969) The distribution of income and wealth among individuals. Econometrica 37(3):382–97
Stiglitz JE (2012) The price of inequality: how today's divided society endangers our future. W. W. Norton & Company, New York
Terasawa KL, Gates WR (1998) Relationships between government size and economic growth: Japan's government reforms and evidence from OECD. Int Public Manag J 1(2):195–223
UNDP (2018) What does it mean to leave no one behind? A UNDP discussion paper and framework for implementation. United Nations Development Programme
United Nations (2015) Universal declaration of human rights: United Nations. Retrieved July 7, 2021, from https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf
United Nations (2016) Leaving no one behind: the imperative of inclusive development report on the world social situation. Department of Social and Economic Affairs
Walzer, M. (1983). *Spheres of justice: A defense of pluralism and equality.* New Basic Books.
Weede E (1986) Sectoral reallocation, distributional coalitions and the welfare state as determinants of economic growth rates in OECD countries. Eur J Polit Res 14:501–519. https://doi.org/10.1111/j.1475-6765.1986.tb00847.x
WEF. (2017). *The inclusive growth and development report 2017.* World Economic Forum.
Woldegiorgis MM (2020a) Modelling institutional reengineering for inclusive development (IRID) in Africa. Pan Afr J Gov Dev 1(1):102–132. https://doi.org/10.46404/panjogov.v1i1.1369
Woldegiorgis MM (2020b) Towards the social market economy in Africa? A policy lesson in a pursuit of a prosperous and an inclusive development. PanAfri J Gov Dev 1(1):100–125. https://doi.org/10.46404/panjogov.v1i2.2335
World Bank (1991) World development report 1991: the challenge of development. World Bank. https://openknowledge.worldbank.org/handle/10986/5974
Young IM (1990) Justice and the politics of difference. Princeton University Press
Yue L, Tianzhu C (2012) Government expenditures, transfer payments and economic growth. Int J Eng Manuf 4(2):93–100