The Relevance of Social Policies for Democracy

Preventing Autocratisation through Synergies between SDG 10 and SDG 16

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In cooperation with:

V-Dem
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Contents

Abbreviations

GDP	gross domestic product
OECD	Organisation for Economic Co-operation and Development
SDG	Sustainable Development Goal
UN	United Nations
V-Dem	Varieties of Democracy equal distribution measures

Executive summary

Global threats to democracy – one of the world's most important forms of inclusive governance – have been rising recently. This paper assesses the effects of social and economic inequalities on autocratisation, meaning a decline in the democratic qualities of a political regime. The key question we study is whether different types, levels and changes in distributional inequalities (Sustainable Development Goal 10) contribute to the erosion of democratic institutions, thereby making governance less inclusive (SDG 16). The paper focusses, in particular, on distributional inequalities and more or less inclusive forms of governance (autocracy vs. democracy). Our findings suggest that conventional measures of income inequality – namely the Gini coefficient – have little to no discernible relationship to the likelihood of a decline in the democratic qualities of a political system. By contrast, inequalities in the provision of social services, particularly healthcare and education, have a clear and consistent relationship to the likelihood of autocratisation. As countries provide social opportunities more equally across their population, they are significantly *less* likely to experience a weakening of their democratic qualities.

The paper provides an empirical analysis of data from a global sample of countries from 1945 to 2017. Unlike most studies of the effects of inequality on political outcomes, we consider not only income inequality but also inequalities in the distribution of social services such as healthcare, education and welfare. Unequal social opportunities are potentially important for understanding a decrease in democratic quality because they represent individuals' experiences with the government beyond simply paying taxes, and they affect citizens' prospects for future social and economic mobility. In addition, citizens with access to social goods and services such as healthcare and education are more empowered to hold the government accountable. In other words, (better) access to social goods and services (SDG 10) helps to achieve SDG 16. The findings provided in this discussion paper are meant to be a starting point for further studying how – and through which mechanisms – equality and inclusive institutions are linked to each other.

Three key recommendations emerge from these findings.

The findings of our empirical analyses are likely to receive the most interest from international actors who keep support for democracy high on their agendas, such as Sweden and Switzerland. However, the findings should matter to all those who are investing in the implementation of the 2030 Agenda, because achieving SDG 16 is decisive for the overall agenda.

Invest in socially inclusive health and education policies to strengthen equality and democracy. Strategies for implementing the 2030 Agenda for Sustainable Development should pay a lot more attention to achieving inclusive social policies. Equal access to education and healthcare is an end in itself (SDG 10), but it could also be a means to achieve more inclusive governance (SDG 16). This applies, in particular, in countries that already qualify as democracies and in poorer or middle-income-level countries. Thus, investing in inclusive health and education policies can strengthen synergies between SDGs. Given that democracies are better in equally distributing social services, it should be a goal in itself to deepen and protect democratic institutions and practices.

Interlink social policies and inclusive governance more systematically in policy design, planning and implementation. Development policies and programmes mostly focus on sectoral issues such as health, water or social protection. Governance is often tackled, if at all, as a cross-cutting or mainstreamed issue. Better governance shall be achieved through more participatory, transparent, etc., policy-making. However, theories of change and indicators focus on sectoral outcomes (e.g. quality in health services, better drinking water, etc.), and governance-related objectives are side-lined. However, well-functioning governance systems and their ability to distribute policies equally are crucial for achieving both SDG 16 and SDG 10. Theories of change and indicators that explicitly include distributional institutions should become the norm and not be the exception. Along these lines, the link between social protection systems, resource mobilisation (fiscal governance) and inclusive governance should be explored more extensively in research and practice.

Broaden and refine the measurement of SDG 10 to capture different types of inequalities. Measures of equality and inclusion have proliferated since the adoption of the 2030 Agenda, including the agreements on indicators for how to measure the different types of (in)equality (United Nations Economic and Social Council [ECOSOC], 2016). In particular, there are a growing number of measures available to understand unevenness in the access to public goods and services such as healthcare and education. They have not yet entered the official measurement of SDG implementation on the country level and in the United Nations. Measures of equal distribution and exclusion by the V-Dem Institute (Coppedge et al., 2018) allow for time-series cross-national analysis, similar to the one presented in this paper. These measures complement existing measures based on economic and social data such as gross domestic product, Gini coefficient, infant mortality and school enrolment. In particular, they can help to identify gaps and changes in distributional equalities that are likely to affect broader achievement of the SDGs.

1   Introduction

The 2030 Agenda for Sustainable Development, which is built around 17 Sustainable Development Goals (SDGs), outlines a new paradigm for global development and international cooperation. For the first time, all United Nations (UN) member states recognised the boundaries of the Earth system and agreed on a transformation to sustainability. The resulting policy framework, the 2030 Agenda, addresses all dimensions of sustainability, including economic, social, ecological and political goals (Rockström et al., 2009; United Nations General Assembly [UNGA], 2015). This process is based on the idea of universalism, meaning that the 17 SDGs can only be achieved if all UN member states agree to implement them, regardless of their level of economic development. Another important feature of the agenda is that it is "integrated and indivisible" (UNGA, 2015). From the latter, it follows that the synergies and trade-offs between individual SDGs require a systematic analysis of the interlinkages between goals (Stafford-Smith et al., 2017; Tosun & Leininger, 2018).

A new strand of literature on the interlinkages between the SDGs has emerged (Breuer, Janetschek, & Malerba, 2019). Many studies have described how the (non-)achievement of one goal influences the potential achievement of other goals. Nilsson, Griggs and Visbeck (2019) propose a typology of different types of interaction between SDGs, ranging from positive to neutral to negative interactions.[1] This general typology now needs to be "filled with life" through empirical analysis of specific SDGs. Along these lines, this paper analyses the interlinkages between two specific goals and some of their targets. More specifically, the paper sheds light on the interactions between SDG 10 ("Reduce inequality within and among countries") and SDG 16 ("Promote peaceful and inclusive societies for sustainable development").[2]

SDG 16 is not only a goal in itself but understood – in research and policy communities – as a precondition for achieving the other SDGs. Inclusive and peaceful societies are thus meant to be "enablers" of the 2030 Agenda (Kanie & Biermann, 2017; Tosun & Leininger, 2018). This thinking reflects a theoretical paradigm that was provided by development research and has been informing development policies for the last two decades. So far, most studies in development and sustainability research have focussed on the quality of governance (participatory, transparent, inclusive, accountable and effective) and its effect on development outcomes. More recently, influential studies emphasise that the inclusiveness of governance matters. For instance, inclusive institutions perform better in fostering innovation and sustained economic growth (Acemoglu & Robinson, 2012; Carter, 2014). In turn, the more exclusive societies are, the less they provide economic security, incentives for productivity and safeguard women from maternal and infant mortality

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1   They propose a seven-point scale, which attributes scores to the different potential interactions, namely three subtypes of positive interactions (indivisible = +3, reinforcing = +2 and enabling = +1), neutral interactions (consistent = 0), and three subtypes of negative interactions (constraining = -1, counteracting = -2 and cancelling = -3).

2   The complete goal reads as follows: "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels."

(Bollyky et al., 2019; Faust, 2007; World Bank, 2017).[3] SDG 16 reflects this empirical evidence and suggests a focus on inclusion and inclusive governance. Its substance differs from previous development thinking, which focussed on "good governance".[4]

Although there is a lot of – though mixed – evidence for the effects of governance and conflict on equality and inclusion (SDG 10), we know less about the reversed effects. Analyses on the causes of violent conflict (SDG 16) constitute an exception. Excluding and treating specific social groups unequally increases the likelihood of armed rebellion (Cederman, Weidmann, & Gleditsch, 2011). Economic inequality between different social groups, too, drives violent conflict (Buhaug, Cederman, & Gleditsch, 2014) and may affect prospects for democratisation (Acemoglu & Robinson, 2006; Ansell & Samuels, 2015; Boix, 2003; Houle, 2009).

Given the recent rise in global threats to democracy – one of the world's most important forms of inclusive governance – this paper investigates how social and economic inequalities contribute to autocratisation, meaning a decline in the quality of democratic political institutions and behaviours. The key question we study is whether different types, levels and changes in distributional inequalities (SDG 10) contribute to the erosion of democratic institutions, thereby making governance less inclusive (SDG 16).

Although SDG 16 does not explicitly recognise democracy, many of its targets relate closely to the tenets of democratic governance. In particular, SDG targets 16.6 and 16.7 assume that inclusive decision-making and accountable institutions – both of which are closely associated with democracy – contribute to the transformation to sustainability. Moreover, the institutions and modes of governance outlined in the SDG 16 text (participatory, accountable, transparent, etc.) capture the defining elements of liberal democracies. In this paper, we thus assume a continuum where (more) democratic and (less) autocratic regimes correlate with more or less inclusive governance.

Although there is a large amount of literature on the relationship between inequality and democratisation, it has not informed the study of interlinkages between SDGs so far. In addition, if SDG 16 shall be an "enabler" for achieving other goals, it is important to know more about the linkage between not achieving certain goals and its negative impact on SDG 16. This paper focusses on the negative effects of not achieving different types of equality – as outlined in SDG 10 (in particular, targets 10.1, 10.2, 10.3) – on SDG 16, in particular targets 16.6 and 16.7 (see Table 1). It investigates how various forms of distributional inequality affect the likelihood that a country will become more autocratic and, thus, less politically inclusive. We analyse data from a global sample of countries from 1945 to 2017. Unlike most studies of the effects of inequality on political outcomes, we consider not only income inequality but also inequalities in the distribution of social services such as healthcare, education and welfare. Unequal social opportunities are potentially important for understanding the decrease in democratic quality because they represent individuals' experiences with the government beyond simply paying taxes, and they affect citizens' prospects for future social and economic mobility. In addition, citizens with access to social

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3   For an overview of the lines of argument, see Leininger et al. (2018).

4   In global development debates, a shift away from the concept of "good governance" to the notion of "inclusive governance" is observable (Leininger et al., 2018, p. 108, Box 4.1).

goods and services such as healthcare and education are more empowered to hold the government accountable. In other words, (better) access to social goods and services helps to achieve SDG 16.
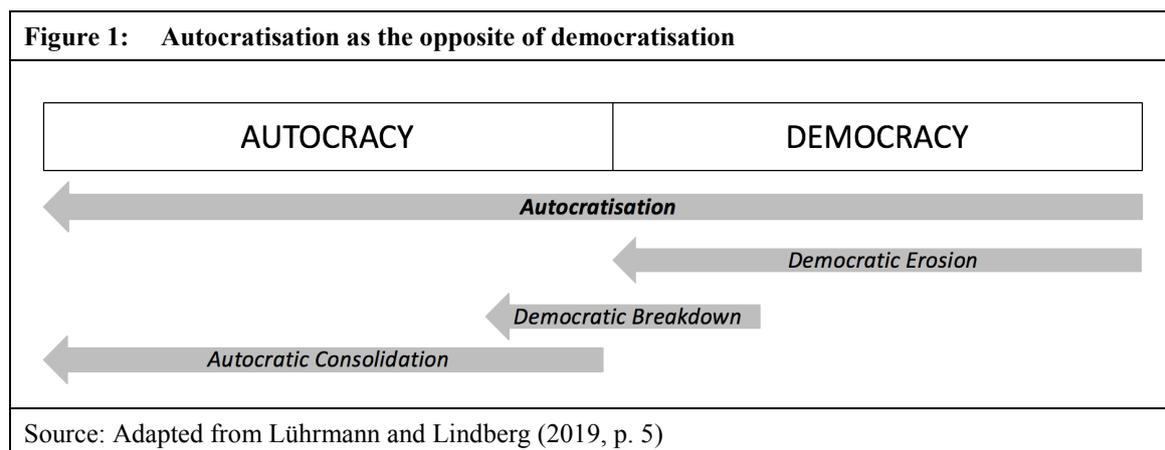
Our findings suggest that income inequality does not affect the likelihood of autocratisation. By contrast, inequalities in the provision of public goods, particularly healthcare and education, have a clear and consistent relationship to the likelihood of autocratisation. As countries provide social opportunities more equally across their population, they are significantly *less* likely to experience autocratisation. This trend is particularly evident in democratic countries, but it is not limited to any other specific group of countries or time periods. The findings suggest that investments in the equal distribution of public services such as healthcare and education may have important consequences for the trajectory of political institutions. Overall, we observe a negative interaction between not achieving SDG 10 and SDG 16. If SDG targets 10.2 (empower social, economic and political inclusion) and 10.4 (adopt social policies) are not achieved, it becomes more difficult to achieve targets 16.3 to 16.7 (on inclusive, good, effective governance and the rule of law). In turn, since democracies provide higher levels of distributional equality than autocracies, investing more in SDG 16 can help to avoid a race to the bottom and create synergies between SDGs 16 and 10. Overall, the findings provided in this discussion paper are meant to be a starting point for studying the links between equality and democratisation or autocratisation. If we want to deepen our understanding and explanations of the relationship between both factors, we need to shed more light on the mechanisms linking distributional (in)equality and democratisation or autocratisation.

In the remainder of this paper, we first introduce the theoretical reasoning, which guides the empirical analysis. In so doing, we present the variety of findings from existing research on inequality and processes of regime change, in particular. In the third section of the paper, we define the key concepts used in the study: inequality and autocratisation. Based on these definitions, we introduce our measurements of the key concepts and the methods used in this paper. The fourth section presents the results of the empirical analyses and provides an interpretation of the results. The paper concludes with a summary of the main findings and policy recommendations for different actors in international cooperation. The findings are likely to receive the most interest from international actors who keep support for democracy high on their agendas, such as Sweden and Switzerland. However, the findings should matter to all those who are investing in the implementation of the 2030 Agenda, because achieving SDG 16 is decisive for the overall agenda.

Table 1: Overview of goal and targets of SDGs 10 and 16	
SDG #10 **Reduce inequality within and among countries**	**SDG #16** **Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**
10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	**16.1** Significantly reduce all forms of violence and related death rates everywhere
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	**16.2** End abuse, exploitation, trafficking and all forms of violence against and torture of children
10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	**16.3** Promote the rule of law at the national and international levels and ensure equal access to justice for all
10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	**16.4** By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime
10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations	**16.5** Substantially reduce corruption and bribery in all their forms
10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions	**16.6** Develop effective, accountable and transparent institutions at all levels
10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	**16.7** Ensure responsive, inclusive, participatory and representative decision-making at all levels
	16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance
	16.9 By 2030, provide legal identity for all, including birth registration
	16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements
Source: UNGA (2015)	

2 Distributive inequality (SDG 10) and exclusive governance (SDG 16)

Autocratisation describes a decline of democratic regime attributes leading to less inclusive forms of governance that place limits on the role of citizens in selecting leaders, accessing justice and influencing policy. Other scholars have labelled similar processes as "democratic backsliding", "democratic erosion", "breakdowns", "reversals" or "reversions" (Bermeo, 2016; Haggard & Kaufman, 2016; Linz, 1978; Svolik, 2014; Waldner & Lust, 2018). We prefer the label of "autocratisation" over "democratic backsliding" because it indicates a clear direction of regime change and marks the opposite of democratisation. Both "democratic erosion" and "democratic breakdowns" can be considered as types of autocratisation (see Figure 1). In addition, the term "backsliding" suggests a process that is not necessarily controllable and, thus, does not pay enough attention to the strategic actions that actors need to take in order to undermine the quality of a regime. The term "reversal" is categorical and refers to a regime breakdown. Thus, it does not necessarily imply the gradual incremental nature of lengthy processes of change towards more autocratic qualities of a regime (see Figure 1). Our conceptualisation, following that of Lührmann and Lindberg (2019), enables us to study both the gradual and sudden processes of bringing a regime closer towards closed dictatorship. However, as with democratisation, autocratisation is an open-ended process that can revert back to democracy (Carothers, 2002). Figure 1 illustrates the changes commonly associated with autocratisation.

Figure 1: Autocratisation as the opposite of democratisation

Source: Adapted from Lührmann and Lindberg (2019, p. 5)

As noted above, autocratisation episodes can take a number of forms. Most extant studies concern the complete breakdown or reversal of democracies (e.g. Linz, 1978; Merkel, 2010; Svolik, 2008). Breakdowns take place when a regime that was once classified as democratic ceases to be a democracy, which typically occurs in a swift, sudden process. This is the case, for example, when a group seizes power from a democratically elected executive or when a leader strips away rights, freedoms, electoral competition or mass participation in a so-called *autogolpe*, or self-coup, in which a leader who came to power through legal and/or democratic means subverts democratic institutions, as in Peru under Alberto Fujimori in 1992 (Geddes, Wright, & Frantz, 2014, 2018; Linz, 1978; Przeworski, Alvarez, Cheibub, & Limongi, 2000).

Other approaches focus on democratic erosion or backsliding. This process involves the gradual weakening of democratic institutions in a democratic regime, or what Waldner and Lust (2018) describe as "relatively fine-grained degrees of change". Such changes may

occur in any number of ways, for instance through intensified media censorship or the manipulation of multiparty elections (Bermeo, 2016; Lührmann & Lindberg, 2019).

Both breakdowns and erosion tend to focus on the loss or regression of democratic institutions *in democratic regimes*. But autocratisation can occur in authoritarian contexts as well, particularly more inclusive or liberal ones. For example, recent crackdowns on individual rights and freedoms in Tanzania represent the loss of an institution that facilitates inclusive competition and political rights in what was, for many years, a rather inclusive and liberal electoral authoritarian regime. We therefore expand on existing approaches to also consider the loss of democratic institutions – those that protect competition, participation or individual rights and freedoms in *non-democratic regimes* – along the "autocratic consolidation" spectrum depicted in Figure 1. Given the increasing array of hybrid regimes with various forms and degrees of institutionalisation (Geddes et al., 2014, 2018; Levitsky & Way, 2015; Svolik, 2014), there are many ways in which authoritarian regimes may lose democratic qualities. A growing body of work recognises these patterns across diverse regime contexts (e.g. Bermeo, 2016; Cassani & Tomini, 2018; Levitsky & Ziblatt, 2018; Lührmann & Lindberg, 2019).

Although, in some cases, processes of autocratisation may take different forms across democratic and autocratic regimes, there are many common patterns of breakdown or erosion that can be observed. For example, both democratically elected and autocratic leaders seek to abolish or sidestep term limits of the executive, attack the media or limit participation of certain groups in political decision-making (Waldner & Lust, 2018).

The causes of autocratisation

With a multitude of autocratisation processes, it is not surprising that there are many explanations for why autocratisation occurs. Much of the scholarship on autocratisation has focussed on democratic breakdowns that occurred before 1990. In many cases, these theories adapted explanations of democratisation to understand backsliding or reversals. For more than 30 years, scholars with an interest in regimes and democracy have focussed on explaining the conditions and causes of democratisation without explicit and systematic recognition that processes of autocratisation may unfold differently. Notably, Waldner and Lust (2018, p. 14) conclude that "[t]he study of [democratic] backsliding is an important new research frontier".

Much of the literature on autocratisation builds on thick, comparative descriptive accounts. In his canonical work, Linz (1978) argues that structural conditions do not determine the breakdown of democracy, but rather that the decisions and interactions of political elites are decisive. Similarly, Bermeo (2003) argues convincingly that elite actions – not mass attitudes and behaviour – were the final blow to every major case of democratic collapse in the 20th century. More recently, Mainwaring and Perez-Liñan (2013) argue that elite actors are key to explaining the ups and downs of democracy in Latin America in the post–Second World War era. Thus, if elite actions matter for the breakdown of democracy, their behaviour before and during autocratisation processes warrants further investigation, yet the literature is relatively silent on this.

Linz (1978, p. 23) also contends that several broad institutional features such as presidentialism and polarised multiparty systems are more conducive to breakdown.

Challengers argue that the designs of these institutions, as well as other contextual factors, are what really matter (e.g. Cheibub, 2014, p. 9). Quantitative studies of democratic breakdown tend to focus on structural and institutional factors, producing a number of important findings.

Others focus on economic conditions: In their influential study covering 1945-1990, Przeworski et al. (2000, p. 103) argue that once a country's wealth is considered, age does not make it more likely to endure. Conversely, Svolik (2008) concludes that democracies are more likely to break down the poorer and younger they are and, echoing Linz, if they have a presidential system. Similarly, Cornell et al. (2017) point out that older democracies in Interwar Europe were more likely to persist in the face of the Great Depression. Building on data from 1955 to 2003, Ulfelder and Lustik (2007, p. 373) likewise contest the claim that economic crisis and presidentialism unambiguously predicts autocratisation. Somewhat moderating the two strands, Bernhard, Nordstrom and Reenock (2001) suggest that majoritarian systems – parliamentary democracies with a dominant party – are more resilient in the face of economic downturns relative to more pluralist presidential and parliamentary democracies, based on an original dataset of all democracies from 1919 to 1995.

Inequality and autocratisation

One well-known body of work focusses on the ways that distributional inequalities affect prospects for democratisation and consolidation (e.g. Acemoglu & Robinson, 2012; Ansell & Samuels, 2015; Boix, 2003; Houle, 2009). These models tend to assume that inequality causes distributional conflict, which impedes democratisation. Wealthy elites fear democratic pressures for downward redistribution and thus seek to maintain authoritarian rule in order to exclude the middle and working classes from power. The implication of these models is that high levels of inequality raise the costs of democratisation for the wealthy, because democracy could empower the poor and middle-class voters to achieve redistribution. Thus, in societies with high levels of inequality, we would expect strong resistance of the rich elite to the adoption of democratic institutions.[5]

Applied to autocratisation, these models predict that when the threat of redistribution rises, wealthy elites seek to roll back the political power of poorer groups in order to protect their privileged economic interests. Once again, high levels of inequality raise the stakes for elites regarding redistributive programmes, driving them to take any action necessary to protect their wealth, including the dismantling of democratic institutions (Acemoglu & Robinson, 2012; Houle, 2009). This logic suggests that autocratisation is more likely to occur in contexts of high levels of economic inequality and where elites face credible threats of redistribution.

Recent studies of autocratisation challenge conventional distributional conflict models in several important ways. First, in their exhaustive study of regime transitions, Haggard and Kaufman (2012) find that less than one-third of democratic reversals (and only 40 per cent of democratisation cases) involve distributional conflict between elites and poorer segments of the population. Instead, they theorise that certain features of "weak democracies" –

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5   More recent work has argued that distributional conflict between elites and the masses is less important for democratisation than intra-elite conflicts. See especially Ansell and Samuels (2015) and Albertus and Menaldo (2018).

including praetorianism,[6] weak institutional constraints on rulers and the prevalence of economic crises – create environments in which conflictual strategic interactions, regardless of their distributive underpinnings, may lead to democratic reversions (Haggard & Kaufman, 2016, p. 225).

A similar challenge to the distributional conflict approach is advanced by Slater, Smith and Nair (2014) in their study of democratic breakdowns in post-colonial states. They argue that the interests of wealthy elites do not always coincide with those of conservative state actors (i.e. the military), whose support is typically necessary to successfully dismantle democratic institutions. Advancing what they call a "state-centered alternative" (Slater et al., 2014, p. 354) to the distributional conflict model, they argue that to avoid breakdowns, democratic states *must* tax at rates higher than wealthy elites would desire, since this is the best way to generate revenue sufficient to buy support from the military or other key members of the ruling coalition. Their empirical findings lead them to conclude that democratic breakdown is largely attributable to *insufficient* redistribution, rather than the elite fear of too much.

Another perspective, advanced by Reenock, Bernhard and Sobek (2007), accepts the basic tenets of the distributional conflict model, but it is argued that such conflicts are more likely to occur when there is *absolute* deprivation rather than *relative* deprivation. Drawing on theories advanced by Sen (1999) and others, they argue that absolute deprivation – in which the basic needs of a large portion of the population are not fulfilled – is more likely to compel redistributive mobilisation than relative inequalities in income (Reenock et al., 2007, p. 680). As such, income inequality alone should not necessarily threaten democratic survival (Reenock et al., 2007, p. 680). One important empirical implication of their theory is that distributional conflict as a threat to democracy is more likely to occur in poorer contexts where a larger segment of the population lacks access to basic goods and services such as food, shelter and healthcare.

A final challenge concerns autocratisation events driven by populist mobilisation. In contrast to the conventional distributive conflict models, populist mobilisation typically involves autocratic leaders who express support for redistribution, rather than reacting against it (Haggard & Kaufman, 2016). In particular, far-left populists – such as Hugo Chavez in Venezuela – place redistributional appeals at the centre of their agenda (Mudde & Rovira Kaltwasser, 2013), whereas far-right populists tend to frame their appeals in terms of the exclusion of "outsiders" (Eichengreen, 2018). More generally, populists perceive the established political system – and the elites in power – as broken and unable to respond to their demands (Judis, 2016). They may therefore seek to undermine – or reject altogether – more representative forms of government.

Those linking populism to autocracy tend to argue that poor economic performance, rising inequality and declining social mobility may contribute to "a sense of hopelessness and exclusion", which heightens insecurity and contributes to anti-establishment sentiment (Eichengreen, 2018, p. 9). As Haggard and Kaufman (2016) note, however, populist reversions driven by inequality may be intensified by structural features of weak democracies such as economic crises, weak institutional constraints and praetorianism.

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6   In a praetorian state (Huntington, 1957), the military dominates the political regime but entitles civilians to rule.

Taken together, these four perspectives provide support for the idea that income inequality alone is unlikely to serve as a catalyst for autocratisation. Instead, these perspectives suggest that declines in democratic regime attributes are more likely to take place when the state ceases to distribute basic goods and services equally to the population. This particular manifestation of distributional inequality may be more likely to compel redistributive mobilisation in ways that are likely to generate autocratic reactions from elites (Reenock et al., 2007), or in ways that delegitimise the government and bolster populist leaders seeking to dismantle representative and rights-granting institutions (Eichengreen, 2018). Moreover, a state's inability to provide social goods and services to its ruling coalition may sufficiently erode support in ways that undermine democratic regime stability (Slater et al., 2014) and render it vulnerable in the face of any form of political conflict (Haggard & Kaufman, 2016). We therefore expect that inequalities in the distribution of social goods and services, such as welfare, healthcare and education, are more likely to lead to autocratisation than income inequality alone.

3 Methods and data

Our analysis combines conventional measures of income inequality – namely the Gini coefficient – with the Varieties of Democracy (V-Dem) "equal distribution" measures (Coppedge et al., 2018; Pemstein et al., 2018; Sigman & Lindberg, 2018), which measure to what extent the state provides public goods and services – including healthcare, education and welfare – equally across the population.[7] We examine the effects of these different types of distributional inequalities on the likelihood that a country experiences autocratisation. We test these relationships on a global sample of countries from 1944 through 2017.

Dependent variable

We use Lührmann and Lindberg's (2019) measure of autocratisation episodes, which they define as a period in which there is a substantial decline in democratic regime traits. Country years are coded as an autocratisation episode when there is a decline of 0.1 per cent or 10 per cent of the scale of V-Dem's Electoral Democracy Index either in a single year or in a connected period of years.[8] V-Dem's Electoral Democracy Index measures the extent to which political competition and mass participation are institutionalised in the political regime, including clean elections, freedom of expression and the media, as well as freedom of association. For the purpose of this paper, we use a dummy variable indicating the onset of an autocratisation episode in the first year the episode is observed.

An overview of the geographical and temporal distribution of autocratisation episodes is provided in Table 2. The top row for each region shows the number of autocratisation episodes. The second row shows the number expressed as a percentage of total possible country-year observations in which an autocratic transition was possible for that region and

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7   In the next phase of the project, we are planning further robustness checks with additional alternative dependent and independent variables such as the Palma ratio (equality) and Polity IV (regime quality).

8   The Electoral Democracy Index ranges from 0 to 1. For more details, see Lührmann and Lindberg (2019, p. 6).

time period. The universe of possible cases is defined such that the regime was not already categorised as a closed autocracy and an autocratisation episode was not already underway. Autocratisation episodes are distributed widely across regions and time periods, though they have been less common in Western Europe and North America and during periods of entrenched regional closed authoritarianism, such as during Soviet rule and in the Arab world in the 1980s and 1990s. There are a total of 155 autocratisation episodes between 1945 and 2017.

Table 2: Autocratisation episodes by region and time period (1945-2017)

	1945-1962	1963-1981	1982-2000	2001-2017	Total
Eastern Europe/Central Asia	0	0	8	8	16
	0.00%	0.00%	3.86%	1.64%	2.26%
Latin America/Caribbean	12	13	6	7	38
	4.82%	4.41%	1.55%	1.72%	2.84%
Middle East/North Africa	5	2	0	5	12
	8.62%	2.99%	0.00%	2.98%	2.39%
Sub-Saharan Africa	3	19	16	13	51
	2.78%	6.53%	3.42%	1.74%	3.16%
Western Europe/North America	1	1	0	1	3
	0.30%	0.26%	0.00%	0.27%	0.21%
Asia/Pacific	4	11	9	11	35
	2.53%	4.91%	3.12%	3.07%	4.20%
Total	25	46	39	45	155
	2.73%	3.65%	2.16%	1.77%	2.41%

Source: Authors' compilation based on V-Dem methodology (Coppedge et al., 2018). The top number in each cell is the number of autocratisation episodes. The bottom is the percentage of country-years in which an autocratisation episode began.

Independent variables

To measure different dimensions of distributional inequality, we use a set of five variables. The first is a standard Gini coefficient measuring income inequality from the World Income Inequality Database.

The four remaining variables come from the V-Dem dataset (Coppedge et al., 2018). The V-Dem dataset contains more than 450 indicators and a number of indices measuring concepts related to democracy and political regimes. The data are based on expert surveys conducted with more than 3,000 country experts. Expert-coded assessments are aggregated into indicators using a state-of-the-art measurement model (Coppedge et al., 2018).

We first employ an index of distributional inequality developed by Sigman and Lindberg (2018). The index uses a Bayesian latent variable analysis to combine four expert-coded indicators from the V-Dem dataset: particularistic vs. public goods distribution (v2dlencmps), universal vs. means-tested welfare programmes (v2dlunivl), health equality (v2pehealth) and education equality (v2peedueq). We also test these four indicators individually to assess their influence on the likelihood of autocratisation. None of the V-Dem indicators of distributional equality are used in the construction of the autocratisation measure, thus ensuring that we are not drawing on the same data on both the right-hand and left-hand sides of the regression equation.

Higher values on the Gini coefficient indicate greater levels of income *inequality*. V-Dem scales its variables such that higher values represent more "democratic" states, meaning that the V-Dem distributional equality variables are scaled such that higher values represent greater levels of *equality*. Specific descriptions of each indicator are provided in Appendix A. Summary statistics for all variables are included in Appendix B.

Control variables

For each model, we use a standard battery of common control variables. For political variables, we include V-Dem's Electoral Democracy Index (v2x_polyarchy) and the age of the current regime, as classified by the Regimes of the World measure, developed by Lührmann, Tannenberg and Lindberg (2018). We also include an interaction of these two variables to capture highly institutionalised democracies. For economic variables, we include log gross domestic product (GDP) per capita, GDP growth, log population size and oil production per capita. We include a dummy variable for the third wave of autocratisation beginning in 1994 (Lührmann & Lindberg, 2019).

Methods

We test the relationship between distributional inequalities and autocratisation in two main steps. First, we use logit models with random effects to assess whether countries with greater levels of distributional inequalities are more likely to experience movement towards a more autocratic regime. In a second set of tests, we use logit estimation with fixed effects for countries and years, allowing us to examine whether movements in inequality levels within countries affect the probability of autocratisation. In an additional set of tests, we investigate heterogeneity in the relationship between distributional inequalities and the likelihood of autocratisation across different types of regimes and levels of wealth.

In all models, we test the effects of two-year lagged independent and control variables on the likelihood of autocratisation. We choose the two-year lag structure to ensure that observations on inequality variables are observed in advance of the imminent episode of autocratisation, thereby minimising the risk of endogeneity. We consider this to be a reasonable choice of lag structure, as lengthening the lag time could raise questions about spuriousness or the effects of changes or events during the lag period. The results are consistent when using one-year lags.

For all models, positive estimates for the income inequality (Gini coefficient) variable suggest that higher income inequality – or movement towards higher income inequality in the case of fixed effects models – leads to a greater likelihood of autocratisation. The V-Dem measures of socio-economic distribution equality, however, are scaled such that higher values reflect greater equality. Thus, negative estimates are interpreted to mean that higher levels of equality in the distribution of social programmes are associated with lower probabilities of autocratisation.

4   Empirical results

Overall, we observe no statistically significant effect of income inequality on autocratisation. A more equal distribution of social goods and services, however, reduces the likelihood of autocratisation. These main results, displayed in Tables 3 and 4, are generally consistent across both sets of tests. In addition, the effects are consistent across models and are most apparent when indicators are aggregated into the Equal Distribution Index. Among the four indicators of social distribution, education equality has the most consistent negative association with the probability of autocratisation, but statistically significant relationships are also detectable for the more equal distribution of healthcare.

4.1   Overall results: Interlinkages between SDGs 10 and 16

Table 3 shows the results of the conditional logit models with random effects. These models test whether variation in levels of distributional inequality affects the likelihood of autocratisation. In Model 1, greater levels of income inequality may be associated with a *lower* likelihood of autocratisation, but this result does not achieve conventional levels of statistical significance. Model 2 shows that higher distributional inequality, as measured by the Equal Distribution Index, has a large, negative and statistically significant ($p<.05$) estimated effect on the probability of autocratisation. This result means that a more equal distribution of social resources is associated with a *lower* likelihood of autocratisation. Models 3-6 show results for the indicators included in the Equal Distribution Index. A more equal distribution of healthcare and education is most strongly associated with a lower likelihood of autocratisation.

In Figure 2 we plot the predicted probabilities for Model 2, in which the independent variable is the Equal Distribution Index. Moving from the most unequal score (0) on the distribution of resources index to the most equal scores (1) reduces the probability of autocratisation by a factor of 4: from approximately 4 per cent to 1 per cent. The findings suggest that countries at a higher risk of autocratisation could meaningfully reduce such risk by adopting more equal social policies.
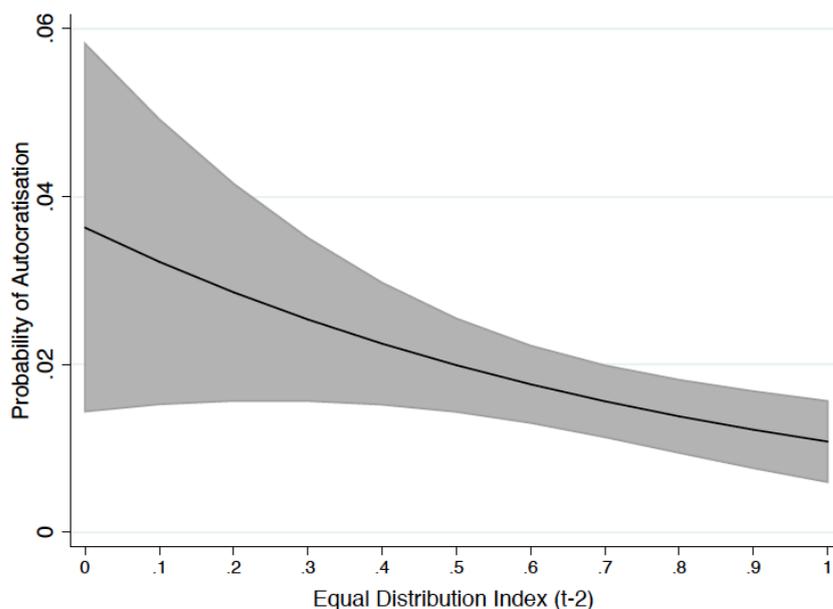
Table 3:   **Inequality and autocratisation: logit with random effects**

	(1)	(2)	(3)	(4)	(5)	(6)
Income Gini (t-2)	-0.01					
	(-0.80)					
Equal Distribution Index (t-2)		-1.250*				
		(-2.17)				
Particularistic Goods (t-2)			-0.134			
			(-1.32)			
Means-Tested Welfare (t-2)				-0.097		
				(-1.00)		
Health Inequality (t-2)					-0.200+	
					(-1.88)	
Educational Inequality (t-2)						-0.232*
						(-2.02)
Electoral Democracy (t-2)	0.614	1.117	0.956	0.762	0.874	1.05
	-0.83	-1.64	-1.41	-1.18	-1.35	-1.56
Log GDP Per Capita (t-2)	-0.450**	-0.370*	-0.508**	-0.483**	-0.390**	-0.363*
	(-2.96)	(-2.52)	(-3.77)	(-3.60)	(-2.68)	(-2.43)
Oil Production PerCapita (t-2)	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-0.94)	(-0.28)	(-0.01)	(-0.12)	(-0.28)	(-0.26)
Log Population (t-2)	0.054	-0.022	-0.006	-0.001	-0.022	-0.018
	-0.81	(-0.38)	(-0.11)	(-0.02)	(-0.37)	(-0.30)
GDP Growth (t-2)	-0.52	1.047	1.085	1.067	1.052	1.059
	(-0.42)	-1.06	-1.13	-1.1	-1.07	-1.08
Regime Age (t-2)	-0.041	-0.017	-0.018	-0.017	-0.018	-0.018
	(-1.62)	(-1.05)	(-1.13)	(-1.06)	(-1.09)	(-1.13)
Regime Age X Electoral Democracy (t-2)	0.017	-0.006	-0.005	-0.008	-0.005	-0.005
	-0.42	(-0.21)	(-0.18)	(-0.28)	(-0.16)	(-0.15)
3rd Wave Autocratisation (1994+)	-0.277	-0.334+	-0.325+	-0.301	-0.318	-0.343+
	(-1.26)	(-1.70)	(-1.67)	(-1.54)	(-1.62)	(-1.75)
OECD Country	-0.908+	-0.810+	-0.877+	-0.888+	-0.802+	-0.810+
	(-1.83)	(-1.74)	(-1.93)	(-1.95)	(-1.73)	(-1.75)
Constant	0.224	0.109	0.606	0.445	-0.252	-0.57
	-0.15	-0.09	-0.52	-0.38	(-0.20)	(-0.44)
Observations	4779	5642	5642	5642	5642	5642

Estimates based on logit models with random effects
Dependent variable = autocratisation two years following observed inequality levels.
T-statistics in parentheses. +p<.1 *p<.05 **p<.01

Source: Authors

Figure 2:   **Predicted probabilities of autocratisation at different levels of distribution**

Note: 90 per cent confidence interval
Source: Authors

In Table 4 we present the results of conditional logit models with country-and year-fixed effects, thereby assessing whether within-country movement in the equal distribution indicators affects the likelihood of autocratisation. The number of observations decreases in the fixed effects models because it excludes countries for which there is no variation in the dependent variable, meaning countries that have never experienced a transition from a less autocratic to a more autocratic regime are excluded.

Looking at Model 1 in Table 4, the results with respect to income inequality suggest that as countries' income distributions become *more unequal* (as the Gini coefficient increases), they are actually *less* likely to experience autocratisation, though the magnitude of the effect is very small.

The results of Models 2-6, however, are generally consistent with the findings of the random effects models above. As countries rise on the Equal Distribution Index (Model 2), there is a decrease in the probability of autocratisation, meaning that a more equal distribution reduces the likelihood of autocratisation. Breaking this index down into its constituent indicators, we see that increases in healthcare and education equality (Models 5 and 6) are, once again, associated with a lower probability of an autocratisation episode. The reported effects are statistically significant at the 90 per cent level, which falls slightly short of the conventional 95 per cent level, but given the rare occurrence of our dependent variable, we suggest that they can be interpreted as providing some – though limited – empirical support for our hypothesis (Ziliak & McCloskey, 2008).

Table 4: Inequality and autocratisation: logit with country- and year-fixed effects

	(1)	(2)	(3)	(4)	(5)	(6)
Income Gini (t-2)	-0.045+					
	(-1.87)					
Equal Distribution Index (t-2)		-2.275+				
		(-1.95)				
Particularistic Goods (t-2)			0.087			
			-0.56			
Means-Tested Welfare (t-2)				0.023		
				-0.14		
Health Inequality (t-2)					-0.374+	
					(-1.81)	
Educational Inequality (t-2)						-0.425+
						(-1.94)
Electoral Democracy (t-2)	5.365**	5.962**	5.466**	5.545**	5.812**	5.893**
	-4.64	-6.35	-6.04	-6.12	-6.32	-6.33
Log GDP Per Capita (t-2)	-0.484	-0.223	-0.438	-0.424	-0.282	-0.227
	(-1.39)	(-0.79)	(-1.63)	(-1.57)	(-1.02)	(-0.81)
Oil Produc Per Capita (t-2)	-0.001	-0.000	-0.000	-0.000	-0.000	-0.000
	(-0.97)	-0.08	-0.24	-0.21	-0.1	-0.1
Log Population (t-2)	-2.083**	-1.647**	-1.863**	-1.862**	-1.674**	-1.674**
	(-3.80)	(-4.12)	(-4.83)	(-4.67)	(-4.22)	(-4.22)
GDP Growth (t-2)	0.81	2.087*	2.179*	2.197*	2.139*	2.113*
	-0.6	-1.99	-2.12	-2.13	-2.04	-2
Regime Age (t-2)	-0.075**	-0.056**	-0.054**	-0.054**	-0.056**	-0.056**
	(-2.98)	(-3.56)	(-3.50)	(-3.53)	(-3.60)	(-3.55)
Regime Age X Electoral Democracy (t-2)	0.217**	0.148**	0.151**	0.151**	0.151**	0.148**
	-3.89	-3.69	-3.8	-3.77	-3.8	-3.7
3rd Wave Autocratisation (1994+)	-0.23	-0.265	-0.199	-0.185	-0.297	-0.252
	(-0.60)	(-0.81)	(-0.62)	(-0.57)	(-0.90)	(-0.78)
OECD Country	-0.812	-0.477	-0.612	-0.6	-0.461	-0.279
	(-0.77)	(-0.46)	(-0.61)	(-0.59)	(-0.45)	(-0.26)
Observations	2615	4196	4196	4196	4196	4196
Pseudo R-squared	0.132	0.122	0.119	0.118	0.122	0.122

Estimates based on logit with country and year fixed effects.
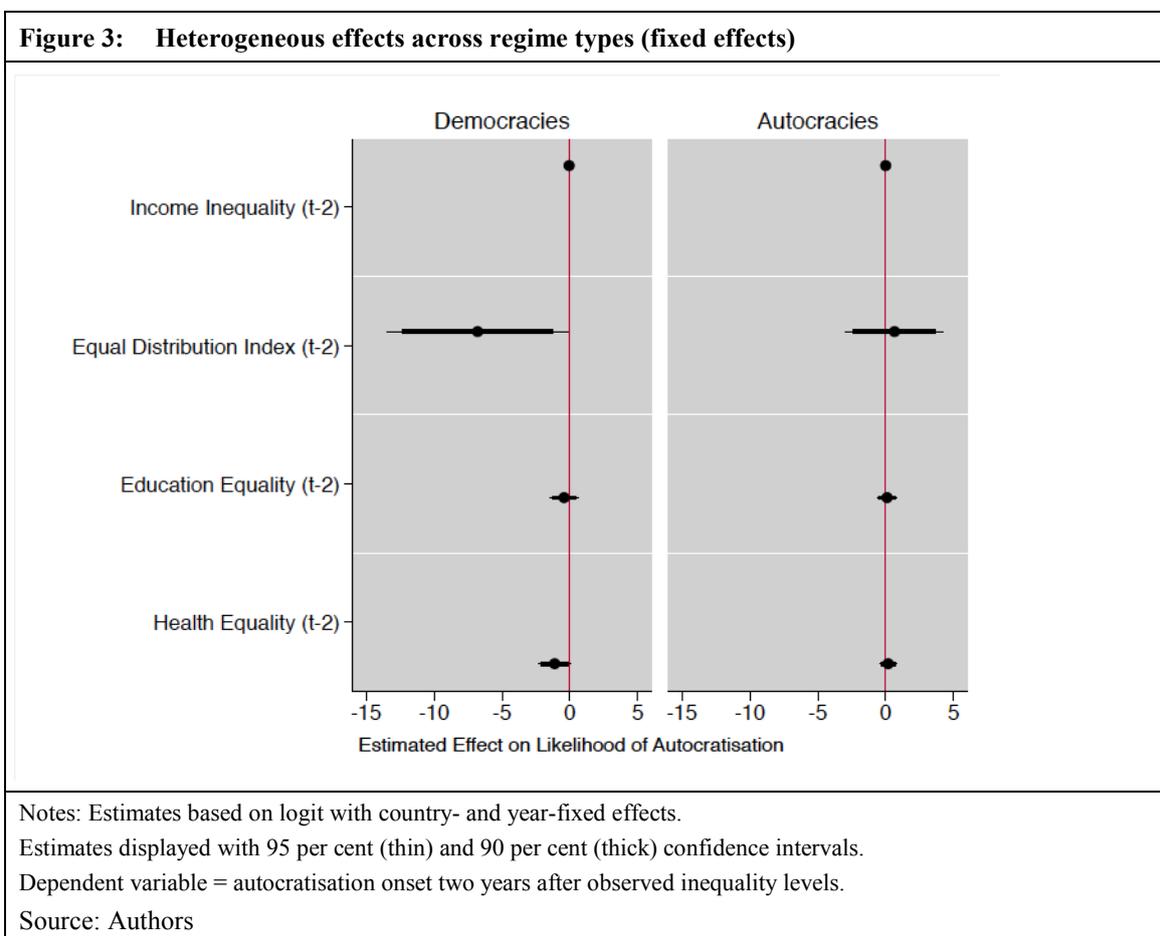Dependent variable = autocratisation onset two years after observed inequality levels.
+p<.1 *p<.05 **p<.01

Source: Authors

The relationship between equal distribution of social goods and services and autocratisation is generally consistent across geographic regions and time periods. When breaking the sample down into events during the third wave of autocratisation (1994-present) or before, there is no significant difference in the estimated effects of the equal distribution indicators in one period versus the other. The same is true across Organisation for Economic Co-operation and Development (OECD) and non-OECD groups of countries.[9]

4.2 Differences between democracies and autocracies

We do find heterogeneity in the relationship between the equal distribution of goods and services and the likelihood of autocratisation across different types of regimes. Analysing fixed effects models employing the same control variables listed in Table 4 and introduced in Section 3, we find that as democratic countries distribute public goods and services more equally, they are significantly less likely to experience autocratisation (Figure 3).[10] In autocracies, however, there is no such effect. In democracy, only the measure of healthcare inequality reaches conventional thresholds of statistical significance.

Figure 3: Heterogeneous effects across regime types (fixed effects)

Notes: Estimates based on logit with country- and year-fixed effects.

Estimates displayed with 95 per cent (thin) and 90 per cent (thick) confidence intervals.

Dependent variable = autocratisation onset two years after observed inequality levels.
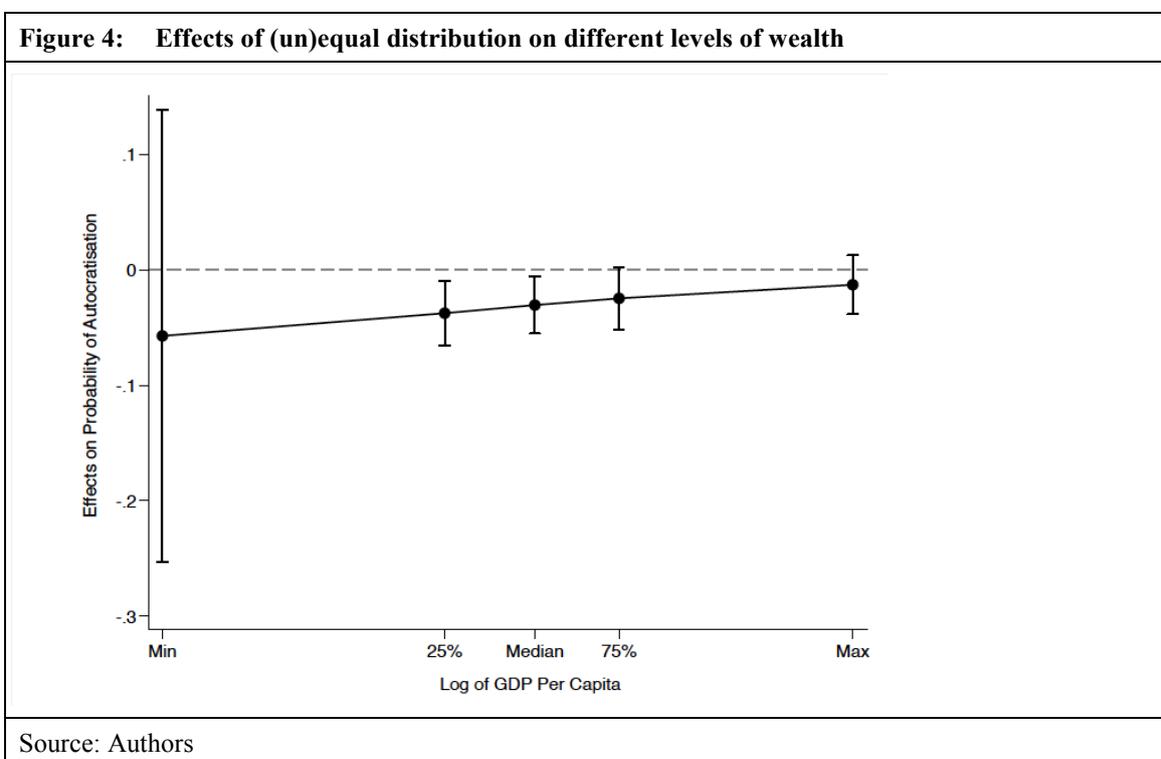
Source: Authors

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9   We do not report results for these analyses.

10 Using the RoW measure, we divide the sample between regimes characterised as "electoral" or "liberal democracies" and those categorised as "electoral autocracies". "Closed autocracies" are, once again, excluded from the analysis.

4.3 Interaction of equal distribution and country wealth

In one final test, we investigate whether the effects of (un)equal distribution of social goods and services on autocratisation vary at different levels of a country's wealth. Reenock et al. (2007) predict that democracies are less likely to survive in the presence of absolute deprivation, meaning that socio-economic distributions are not only unequal, but that there is also a substantial share of the population whose basic needs are not being met. This logic suggests that the effects of an unequal distribution of basic goods and services should be greater in poorer countries than in wealthy ones. Figure 4 shows the predictive margins at different levels of GDP per capita (logged). As expected, the predicted effects of the Equal Distribution Index on the probability of autocratisation are smaller at higher levels of economic wealth. However, the predicted effects of the Equal Distribution Index are only statistically significant at the middle to low levels of economic wealth.

Figure 4:   Effects of (un)equal distribution on different levels of wealth

Source: Authors

4.4 Showcasing countries where distributional inequality may drive autocratisation

Of the 155 autocratisation cases included in our sample, 37 of them occur in the wake of significant five-year declines on the Equal Distribution Index. In Figure 5, we show the estimated size of that decline in the Equal Distribution Index for those 37 cases. As is evident from the graph, the episodes span all time periods and continents. The most acute cases of decline in equal distribution prior to autocratisation have occurred in Latin America and Africa. One notable case is Bolivia in the mid-2000s, when then-president Gonzalo

Sánchez de Lozada implemented "shock therapy" economic reforms, which sparked mass protests and the rise of the leftist populist leader Evo Morales.

We also see a number of African cases – Mali, Central African Republic, Benin, Lesotho – from the 1960s on the far right of the graph. Although the equal distribution of social goods improved after the end of colonialism in the late 1950s and early 1960s, these improvements started to stagnate or reverse in advance of coups that took place in these countries later in the 1960s.

Figure 5:   Five-year decline in Equal Distribution Index before autocratisation after 1946

Source: Authors' compilation based on V-Dem methodology (Coppedge et al., 2018)

5   Conclusions and recommendations: Addressing potential synergies between SDGs 10 and 16

Overall, the empirical analyses in this paper cast doubt on the idea that income inequality alone is sufficient to bring about the types of distributional conflicts that threaten democratic regimes. Instead, the results suggest that conventional measures of income inequality – namely the Gini coefficient – have little to no discernible effect on the likelihood of autocratisation. This finding could mean that income inequality is not a significant driver of the types of distributional conflicts that lead to autocratisation. It could also mean that distributional conflicts themselves are not an important mechanism of autocratisation.

What we do find is that the equal distribution of social goods and services, particularly healthcare and education, appear to reduce the likelihood of autocratisation. The effects are most evident in fixed effects models in democratic countries, meaning when there is a change in the distribution of social goods and services. The relationship between equal distribution and autocratisation also appears to be more consistent in countries with low and middle levels of economic wealth.

Though we do not test *how* the equal distribution of social goods and services decreases the probability of autocratisation, several possible mechanisms are worthy of further investigation. First, as Reenock et al. (2007) explain, the deprivation of basic needs may be more likely to generate the types of redistributive demands feared by wealthy elites. Second, an unequal provision of services may bring about the types of disillusionment with representative government that give rise to populist movements in support of autocratic leaders. Third, the deprivation of social resources may limit effective and meaningful political participation by poorer individuals. If large portions of the population are not able to participate because they are, for example, insufficiently educated or healthy, this may weaken constraints on rulers that emanate from elections, civil society or other popular mechanisms. In countries with weaker judicial and legislative institutions, a weakening of the mechanisms of vertical accountability could pose serious challenges to democratic political regimes.

No matter what the mechanisms, the findings have important implications for understanding and preventing autocratisation processes throughout the world. The development of robust social policies and the strengthening of systems through which social goods and services are distributed are likely to be important towards efforts to contain the decline of democracy around the world.

The findings of this paper have important implications for implementing the 2030 Agenda. It concludes that there are likely to be mutually enforcing effects between SDG 10 and SDG 16. If targets 10.2 (empower social, economic and political inclusion) and 10.4 (adopt social policies) are not achieved, it will become more difficult to achieve SDG 16, in particular targets 16.3 to 16.7 (on inclusive, good, effective governance and the rule of law). These findings imply that it will be more difficult to fulfil the guiding principle "leaving no one behind" unless we also commit strongly to inclusive governance when implementing the SDGs.

In states where distributional equality is low, political regimes are more likely to lose the democratic qualities of their political institutions. The more autocratic political regimes become, the less likely they are to be inclusive. As a consequence, negative interactions between social inequality and autocratisation could lead to a race to the bottom, which further threatens the goal of "leaving no one behind". Moreover, the more exclusive political regimes become, the less governments will protect human rights, and the more difficult it becomes to defend human rights.

To conclude, given the importance of the relationship between different types of equality and inclusive and democratic governance, more knowledge is needed to uncover the mechanisms between social and economic equality on the one hand, and processes of political inclusion (respectively exclusion) on the other hand, and vice versa. For instance, although autocratisation trends, such as those in Brazil, are likely to be driven by social exclusion, powerholders might as well use social policies to consolidate their power and

appease parts of the population (e.g. India, and Rwanda during the last five years, at least). The findings provided in this discussion paper are, thus, a starting point for further studying how – and through which mechanisms – equality and inclusive institutions are linked to each other.

Recommendations

The findings of our empirical analyses are likely to receive the most interest from international actors who keep support for democracy high on their agendas, such as Sweden and Switzerland. However, the findings should matter to all those who are investing in the implementation of the 2030 Agenda, because achieving SDG 16 is decisive for the overall agenda.

Invest in socially inclusive health and education policies to strengthen equality and democracy. Strategies for implementing the 2030 Agenda and sustainable development should pay a lot more attention to achieving inclusive social policies. Equal access to education and healthcare is an end in itself (SDG 10), but it could also be a means to achieve more inclusive governance (SDG 16). This applies, in particular, in countries that already qualify as democracies and in poorer or middle-income-level countries. Investing in inclusive health and education policies can strengthen synergies between SDGs. Given that democracies are better in equally distributing social services, it should be a goal in itself to deepen and protect democratic institutions and practices.

Interlink social policies and inclusive governance more systematically in policy design, planning and implementation. Development policies and programmes mostly focus on sectoral issues such as health, water or social protection. Governance is often tackled, if at all, as a cross-cutting or mainstreamed issue. Better governance shall be achieved through more participatory, transparent, etc., policy-making. However, theories of change and indicators focus on sectoral outcomes (e.g. quality in healthcare, better drinking water, etc.), and governance-related objectives are sidelined. However, well-functioning governance systems and their ability to distribute policies equally are crucial for achieving both SDG 16 and SDG 10. Theories of change and indicators that explicitly include distributional institutions should become the norm and not be the exception. Along these lines, the link between social protection systems, resource mobilisation (fiscal governance) and inclusive governance should be explored more extensively in research and practice.

Broaden and refine the measurement of SDG 10 to capture different types of inequalities. Measures of equality and inclusion have proliferated since the adoption of the 2030 Agenda, including the agreements on indicators for how to measure the different types of (in)equality (ECOSOC, 2016). In particular, there are a growing number of measures available to understand unevenness in the access to public goods and services such as healthcare and education. They have not yet entered the official measurement of SDG implementation on the country level and in the UN. Measures of equal distribution and exclusion by the V-Dem Institute (Coppedge et al., 2018) allow for time-series cross-national analysis, similar to the one presented in this paper. These measures complement existing measures based on economic and social data such as GDP, Gini coefficient, infant mortality and school enrolment. In particular, they can help to identify gaps and changes in distributional equalities that are likely to affect broader achievement of the SDGs.

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Appendix

Appendix A: V-Dem Equal Distribution Indicators

V-Dem's Equal Distribution Index aggregates four indicators. Each indicator is constructed from expert responses to the following survey questions. The indicators are scaled from 1 to 5, where higher scores reflect a more equal distribution.

- Particularistic or Public Goods: Considering the profile of social and infrastructural spending in the national budget, how "particularistic" or "public goods" are most expenditures?

- Universalistic Welfare: How many welfare programmes are means-tested and how many benefit all (or virtually all) members of the polity?

- Health Equality: To what extent is high-quality basic healthcare guaranteed to all, sufficient to enable them to exercise their basic political rights as adult citizens?

- Education Equality: To what extent is high-quality basic education guaranteed to all, sufficient to enable them to exercise their basic rights as adult citizens?

Appendix B: Descriptive statistics

Variable	Mean	SD	Min	Max	N
Autocratisation	0.02	0.13	0.00	1.00	6914
Equal Distribution Index	0.60	0.28	0.03	0.99	6992
Particularistic vs. Public Goods	0.65	1.19	-3.11	3.33	6992
Universalistic Welfare	0.64	1.09	-3.19	3.38	6992
Health Equality	0.55	1.51	-2.92	3.79	6992
Education Equality	0.49	1.49	-3.25	3.58	6992
GDP Per Capita (log)	8.68	1.12	5.36	11.88	8223
Oil Production Per Capita	226.28	1063.55	0.00	15868.50	6309
GDP Growth	0.02	0.10	-0.82	2.26	8142
Population (log)	9.02	1.96	3.71	16.76	7774
Electoral Democracy	0.56	0.25	0.04	0.94	6931
Regime Age	19.31	20.93	0.00	117.00	6931
Electoral Democracy X Age	12.70	17.57	0.00	105.09	6920
Third Wave of Autx	0.42	0.49	0.00	1.00	9402
OECD Dummy	0.18	0.38	0.00	1.00	9402

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