The Democratic State and Redistribution:
Whose Interests Are Served?

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Abstract

Growing economic inequality has raised concerns that democratic governments are no longer responsive to popular demands for redistribution, either because the state capacity is eroded by footloose capital, or because the wealthy subvert democracy through the power of money. In this paper we critically assess these assertions against long-standing arguments about redistribution and insurance under democracy. We test the alternatives on a new comprehensive dataset on income inequality from 17 advanced democracies between 1980 and 2019. We find that before taxes and transfers income inequality has risen markedly everywhere, but also that government redistribution has played a critical role in compensating the middle class, and to a perhaps surprising degree also the poor. The United States is a large outlier, however.

Introduction

The sharp rise in income inequality since the early 1980s has attracted much scholarly attention and resulted in an emerging consensus about the limits of democracy in ensuring broad sharing of economic growth. This gloomy view stands in contrast to the optimistic assessments of the first three post-WWII decades, nostalgically referred to as the "Golden Age", "Trente Glorieuses", and so on. Today, the predominating view is that governments have lost their ability to effectively intervene in the market and redistribute income through taxes and transfers to protect the interests of the majority. This paper is a critical theoretical and empirical assessment of this emerging scholarly consensus, focusing on the past 40 years. We present a theory of inequality and redistribution that builds on classic models of democracy and redistribution, and we employ it as a baseline to evaluate competing hypotheses using a new comprehensive dataset on the distribution of national income across advanced capitalist democracies. The results show that democracy remains a powerful guarantor of shared prosperity, with one notable exception.

The revisionist interpretation of democratic capitalism comes in at least two flavors. One grows out of the public opinion literature and focuses on the link between preferences and policies. Most work in this vein find that redistributive policies are strongly biased toward the preferences of the rich, even in traditionally egalitarian, European democracies (Gilens 2012; Bartels 2008; for a systematic review of this literature, see Elkjær and Klitgaard forthcoming). Another literature arises from a macro political economy perspective, which questions the structural capacity of democracies to redistribute. For Streeck (2016) globalization of capital renders democratic governments impotent to tax and spend without causing capital flight, turning democracy and the demand for redistribution into mere symbolic politics. Piketty acknowledges

that politics matters, but in his influential 2014 book on capitalism in the 20th century, growing capital mobility reinforces a built-in tendency for capital to accumulate faster than economic growth (r>g in Piketty's notation). A complementary argument is that the rich can use rising wealth to pay tax lawyers and accountants to shift income and evade taxes. Rodrik (2011) succinctly summarizes these and related arguments as a "trilemma" between (hyper-)globalization, democracy, and redistribution: it is not possible to have all three at the same time.

Yet, there are reasons to be cautious about these claims. First, expressed preferences may be a poor guide to whose interests are pursued in economic policies. Lack of information, or voter misinformation, can create poor correspondence between preferences and policies, but being uninformed about politics does not preclude voting in line with class interests (Elkjær and Iversen 2020). While voters adopt issue positions that are sometimes fickle and inconsistent, many know enough to vote for a party that represents their interests. Going back to Downs (1957), one of the main functions of political parties is to provide voters with simple informational shortcuts; another is to overcome collective action problems and policy inconsistency through tight internal party organization and discipline (Aldrich 1995; Rosenbluth and Shapiro 2018). Recent scholarship confirms the role of political parties in forging pro-welfare state electoral coalitions (Gingrich and Häusermann 2015; Schwander, Manow and Palier 2018).

Second, for all the data brought to bear on the relationship between democracy and inequality—lacking correspondence between preferences and policies, rising market inequality, top-end wealth concentration, deepening poverty, and higher Ginis—there are surprisingly few

comparative studies that directly examine the effect of the democratic state on the interest-realization of different classes. Piketty's pioneering work on measuring inequality, for example, still leaves uncertainty about the key claim that capital and the rich have reaped most of the gains of growth. After taking account of destruction of capital and capital taxation, his own results suggest that the rate of net capital accumulation is *lower* than the rate of growth (r < g) for the entire period from 1913 to 2012—that is, basically for the period of democracy (Piketty 2014, Figures 10.10 and 10.11). Rodrik and Streeck present no data to show that the advanced democratic state has weakened over time, and total government social spending as a share of GDP has risen over the past four decades. Theoretically, Iversen and Soskice (2019) build on arguments in economic geography (e.g., Storper 2013) and business schools (e.g., Iammarino and McCann 2013) to argue that far from increasing mobility of advanced capital, multinationals are increasingly tied down in geographically rooted knowledge clusters of skilled labor, which gives governments wide scope for taxation and redistribution.

We are left, then, with sweeping new claims about a decline in the capacity and willingness of democratic governments to confront rising inequality, yet little serious engagement with arguments, some with a long pedigree, that suggest otherwise. The central question for this paper is the responsiveness of the democratic state to the economic interests of different classes in an age of rising inequality.[1] The recent release of the World Inequality Database (WID) offers an unprecedented opportunity to confront competing arguments with comprehensive new evidence.

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[1] Esping-Andersen (1990, 11) put the matter succinctly three decades ago: "The central question…for the entire contemporary debate on the welfare state, is whether, and under what conditions, the class divisions and social inequalities produced by capitalism can be undone by parliamentary democracy."

In doing so, this paper provides fresh answers to the most pressing questions about the role of the democratic state in redistribution: whose economic interests are best reflected in the flow of state resources, from cash transfers to social insurance to public goods? Is the democratic state less involved in redistribution today than forty years ago? Are redistributive policies increasingly favoring the economic interests of the rich over the middle and the poor? Is globalization undermining the fiscal capacity of the state?

The rest of the paper is divided into four sections. First, we show that the past four decades have indeed been a period of rising market inequality. It is on this background that we must understand the contemporary politics of redistribution. Second, building on existing models we present a theoretical framework that encompasses long-standing arguments about the role of the democratic state in redistribution and social insurance. We use this framework to derive a set of baseline predictions about the role of the democratic state in countering the rise in market inequality and safeguarding (or not) the interests of different classes. These predictions represent mostly existing, yet largely forgotten or ignored, arguments about democracy. Third, we test these predictions against recent arguments about the rising power of capital and the rich. We find that the middle-income quintile in most advanced democracies has largely kept up with the overall growth of the economy, and that this is a direct result of a redistributive state. To a degree we did not anticipate, this is also true of the bottom-income quintile. The US stands out as a major outlier, however, with overall macroeconomic growth exceedingly outpacing low and middle after-tax-and-transfer incomes. We consider violations of theoretical assumptions, notably majority rule and the salience of class, which may explain this puzzle. In the conclusion we also raise concerns about how rising segmentation of labor markets, lower mobility, and

increasing accumulation of wealth, all correlates of pre-fisc inequality, could undermine solidarism.

The Context: Four Decades of Rising Pre-Tax Income Inequality

We begin by documenting the rise in pre-tax income inequality using data from the WID, which we will discuss in detail below. Figure 1 displays changes in the shares of total pre-tax income received by the bottom 20%, middle 20%, and top 1% from 1980 to 2016 for each of the 17 countries included in our advanced democracy sample. The figure shows that in most countries the top 1% income share has increased markedly: on average by 36%, corresponding to 2.8% of national income. The increase is most pronounced in the US, in which top 1%'s share of income has risen by 80% (equivalent to 8.2% of national income).

Figure 1. Changes in Pre-Tax Income Shares From 1980 To 2016, by Income Group.
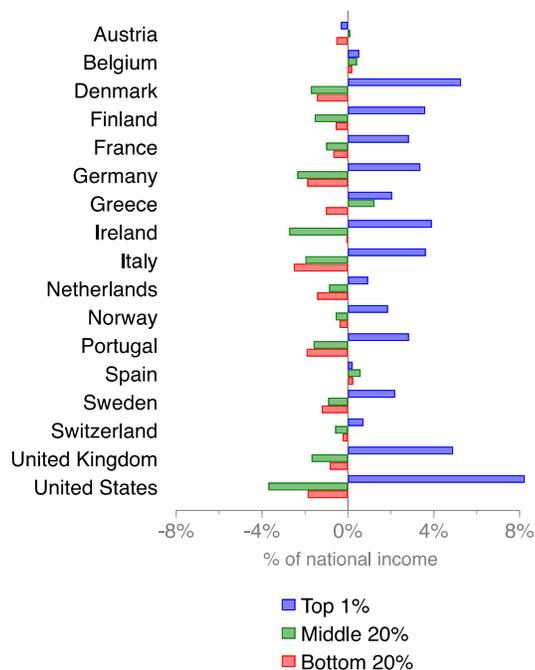
Note: The years for which change is calculated differs for Austria (2004-2016), Belgium (1991-2016), and Switzerland (1982-2016).

For the bottom 20% and middle 20%, we see roughly mirror images of that of the top 1%. On average, the bottom 20% income share has declined by 19%, which is almost 1% of national income. The middle 20% income share has decreased by 6.6% on average, but from a higher level than that of the bottom, so in terms of national income it equals a similar loss of 1.1%. Again, the development in the US is more extreme than that in any other country. Here, the bottom 20% income share has been halved (from 3.8% to 1.9%) and that of the middle cut by about a quarter (from 15.3% to 11.6%). In very few countries, the bottom and middle quintiles have experienced (slightly) rising pre-tax income shares. Overall, Figure 1 thus displays a now familiar pattern of widening pre-tax income distributions since 1980, especially in the US.[2]

There are many and complex reasons for this widening. Most are linked to the transition from a Fordist industrial economy to a new knowledge economy, with a rising market premium on skills combined with strong agglomeration dynamics in the successful cities.[3] Some of these changes have caused, and are in turn caused by, changes in market power. The bottom has lost out with the decline of unions and centralized wage bargaining (Ahlquist 2017), rising gig work, and growing monopsony power of large employers (Rahman and Thelen 2019; Thelen 2018; Hertel-Fernandez 2018), especially in the US and the UK, while the top has benefited from skill-biased technological change (Autor, Levy, and Murnane 2003). We recognize the importance of explaining "predistribution", but whereas pre-tax inequality has many (economic and political)

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[2] The pattern is similar when dividing the entire income distribution into three groups (Appendix Figure A1).

[3] See Iversen and Soskice (2019) and Hassel and Palier (2020) for a discussion of the causes and consequences of this transition. For a seminal treatment of the rise of cities, see Storper (2013).

causes, fiscal redistribution is a direct result of democratic politics, and so like most of the political economy literature, our focus is on redistribution where democratic politics and political power should be paramount. In Appendix B, however, we consider the extent to which government redistribution also affects the distribution of pre-fisc income. The effects are not large, but they mostly reinforce the findings for redistribution.

A Three-Class Theory of Redistribution

In Gilens' (2012) pioneering work, policy influence is compared across income classes. We agree with Gilens that if the task is to account for power over democratic politics, we cannot dispense with an analysis of class interests. But instead of using expressed preferences in opinion surveys to gauge interests, with all the pitfalls of such an approach, we derive interests from the existing literature and compare them to actual policies of redistribution.

The point of departure is a standard three-class model of redistribution pioneered by Persson and Tabellini (2000). The model assumes that individuals belong to either a low-, middle-, or high-income class (which we refer to as *L*, *M*, and *H)*, and that each class maximizes net income for itself, with due attention to the efficiency costs of taxation. Unlike the classic Meltzer-Richard model (1981), the three-class model has no median voter since taxes and transfers can be targeted to each class. With additional assumptions, however, there are coalitional equilibria in the model. Iversen and Soskice (2006) show that if two classes are required for a majority and policies are decided through Rubinstein bargaining, the possibility of stable equilibria arises because there is a cost of switching from one coalition to another (in Rubinstein bargaining

theory this is the cost of a delay), so whichever coalition partner gets to make the first offer will ensure that this offer is marginally better than what the other player can get from an alternative coalition. The offer is accepted and the game ends. This logic applies to a proportional representation system with three class parties. In a majoritarian two-party system with an *LM* and *MH* party, the party that is more credibly committed to an *M* platform wins the majority.

The Iversen-Soskice model implies that the middle class is more likely to be part of a winning coalition than either the poor or the rich. Loosely speaking, this is because the interests of the middle class are better aligned with those of either the poor or the rich than the alignment of interests between the poor and the rich.[4] Consistent with much work on redistribution and the welfare state—from Baldwin (1990) to Esping-Andersen (1990) to Rothstein (1998)—the model therefore predicts the middle class to have an outsize influence on policies, and middle-class interests consequently serve as a natural baseline against which we can evaluate actual outcomes.

Class Interests Defined

The three-class theory stipulates that each class wants to tax other classes up to the point where any additional taxation would reduce revenues because of tax disincentives, but in keeping with standard arguments about democracy we assume that "regressive" redistribution from lower to higher classes is not feasible. Theoretically, this can be justified if (advanced) democracy is a credible commitment to redistribution, as argued by Acemoglu and Robinson (2006). Empirically, there is also no country-year in our sample of advanced democracies with regressive

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[4] It follows if redistribution is non-regressive; an assumption we discuss below.

taxation.[5] Assuming non-regressivity, the optimal tax rate of H is zero, while M wants to tax H at the maximum rate and transfer the proceeds to itself. The optimal policy for L is to tax both M and H at the maximum rate and transfer the proceeds to L.

With these assumptions, if M is politically decisive its net income, y_M^{net}, is:

$$(1) \qquad\qquad y_M^{net} = y_M + T_M = y_M + t_M^H * \cdot y_H,$$

where y_M is M's pre-fisc income, T_M is the net transfer to M, and $t_M^H *$ is the optimal tax rate imposed by M on H. The tax rate is broadly conceived to include all taxes on labor and capital income, property, and consumption plus mandatory social contributions.

We next define H's *rate of transfer* as the net transfer from H divided by H's net income:

$$(2) \qquad\qquad \tau_M^H(H) = \frac{-T_M}{(1-t_M^H *) \cdot y_H} = \frac{-t_M^H * \cdot y_H}{(1-t_M^H *) \cdot y_H} = -\frac{t_M^H *}{1-t_M^H *}.[6]$$

If M has the power to tax at its optimal rate, H's transfer rate is expected to be stable and unrelated to H's income. On the other hand, if income buys influence (say through campaign contributions or lobbying), and if more income buys more influence, as arguments about the

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[5] Non-regressivity may not hold in developing democracies and one would then have to consider a broader range of outcomes, with M no longer necessarily playing a pivotal role. In that case democracy would also not be a credible commitment to redistribution.

[6] We use net income in the denominator to rule out the possibility of undefined transfer rates for income groups without earnings. In practice, whether transfer rates are expressed relative to pre- or post-fisc income does not affect the substantive results.

power of the rich would have it, *H*'s transfer rate should be declining in top-end inequality. In that case the rich would contribute less to redistribution and the middle class would lose out. Any such drop in the transfer rate would be evidence of the rich growing more powerful.

Yet the power of money extends well beyond any direct influence on statutory tax rates and may work indirectly by undermining the government's capacity to tax. Going back to Mirrlees (1971), a standard assumption in the optimal taxation literature is that taxation creates work disincentives, but this is probably only a minor consideration for the rich.[7] The New Tax Responsiveness literature, pioneered by Feldstein (1995, 1999), instead considers the ability of businesses and high-income earners to shift their consumption, income, and effort to offset higher taxes. For example, in response to a tax hike it may be possible to redirect income to lower-taxed foreign juristictions; or it may be possible to shift income to forms of renumeration—stock options, profit sharing, supplementary health or pension benefits, and so on—that are subject to lower tax rates; or it may cause some high-income earners to cut non-paid hours of work in ways that reduce productivity and taxable income in their paid work. Such substitution effects result in deadweight losses and impose a constraint on fiscal policymakers. Recent studies from both the US and Europe confirm the existence of substitution effects and further show that they (unsurprisingly) rise in income and wealth (e.g., Gruber and Saez 2002; Saez, Slemrod, and Giertz 2012).

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[7] For higher-income individuals (our *H* group) working hours have consistently been found to be unresponsive to taxation (Meghir and Phillips 2010).

An unambiguous implication of the New Tax Responsiveness literature is that rising top-end incomes incentivize the rich to engage in tax shifting. Yet, governments are not powerless. Indeed, Saez and Zucman (2019) argue that constraints on governments' taxable capacity (at least partly) reflect the tax structure itself, which is a function of past policy decisions. Therefore, for M to retain its political influence and keep up H's transfer rate during periods of rising top-end inequality, it must counter not only the "instrumental power" of the rich to shape the tax structure but also their "structural power" to evade taxation within any given tax structure. This presupposes that democratic governments continuously use their legislative and regulatory powers to plug tax loopholes and dissuade tax evasion. The difference between a constant and a falling H transfer rate is the difference between a politically resillient non-rich majority and an ascending rich minority. In a nutshell, this is what the contemporary debate about inequality and class power is all about.

The need of M to assert itself over fiscal policies when top-end inequality rises is perhaps more transparent when we define the transfer rate relative to M's (net) income:

(3)
$$\tau_M^H(M) = \frac{T_M}{y_M + T_M} = \frac{t_M^H * \cdot y_H}{y_M + t_M^H * \cdot y_H} = \frac{t_M^H *}{\frac{y_M}{y_H} + t_M^H *}.$$

Compared to the H transfer rate, we see that constant M class power requires that the M transfer rate *rises* in top-end inequality.

Note that the need for M to continuously adjust policies to protect its interests in an inequalizing world means that policy stasis and path dependence are insufficient mechanisms to defend middle-class interests, in contrast to Pierson's (1996) classic argument. All countries in our

sample have gone through multiple reforms of their tax and transfer systems to protect and expand the tax base while simultaneously adjusting policies to new circumstances and political demands (including cuts to marginal tax rates). Our aim is not to explain the content of these reforms, but instead to track their cumulative fiscal implications under the assumption that changes in transfer rates reflect underlying changes in class power.

Extension (i): The Role of Public Goods

The baseline theory assumes that M wants to spend all tax proceeds on itself, and L will consequently never see an off-setting transfer when top-end inequality rises (unlike M). Certain types of public goods spending, however, do include L as a beneficiary. The classic example is national defense, but the assumption of cross-class sharing is approximated for a range of public goods paid out of general taxation. This is true for everything from public schooling to large-scale infrastructure to policing.[8] Including public goods in the analysis should therefore make the transfer rate dependent on top incomes, with H contributing more, and L now benefitting, when top-end inequality rises. For overall government spending, L should benefit more the higher the share of spending allocated to public goods.

This logic is captured by the classic Meltzer-Richard model because benefits are here assumed to be lump-sum while taxes are propotional. Under these assumptions, M's optimal tax rate, and

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[8] We realize that some nominally "public goods", notably policing, can be applied in abusive and inequalizing ways that turn them into "targeted bads" for some groups. Our fiscal data cannot identify such instances but excluding spending on "law and order" has no effect on our substantive results.

hence *H*'s transfer rate, rises with inequality. The problem with the Meltzer-Richard model is that there is no general justification for why *M* should impose taxes on itself for purposes of redistribution; nor why it would share the proceeds with *L*. But for pure public goods it is a good approximation.

Extension (ii): The Role of Insurance

In addition to public goods, *M* may also tax itself for purposes of social insurance, just as people may spend some of their income on private insurance (say life, property, or car insurance). Social insurance has long been understood as a major component of the welfare state (Baldwin 1990; Moene and Wallerstein 2001; Rehm 2016), and it has broad consequences for distributive outcomes because insurance payouts go to those who have lost income. Even if *L* has no political power, many in *L*—including the sick, infirm, and unemployed—will benefit from *M* supporting spending for purposes of insurance. This logic extends across generations, where *M* may want to insure its children in case they experience downward mobility, or *M* may want to insure its parents against poverty in old age. Such insurance will count as income for the poor (*L*).

We can account for the role of social insurance by assuming that people are exposed to a risk of downward mobility, so that *M* benefits in some measure from transfers to *L*. The same is true of *H*, but those in the high-income group tend to be largely shielded from risks. In Moene and Wallerstein (2001), for example, the rich are assumed to face no risks at all, and empirically, the risk of unemployment is strongly negatively related to income (Rehm 2016). Even if we allow the rich to have demands for social insurance, those with high incomes tend to have better access

to private insurance, which undermines any incentive of *H* to support public insurance (Busemeyer and Iversen 2020).

Opportunities for upward mobility will in principle also shape redistributive preferences (by reducing them). Yet, for risk-averse voters, downward mobility should have a larger effect on welfare, and since upward and downward mobility cancel out in equilibrium, we focus on the risk of downward mobility.[9]

Standard insurance models have two key results for our purposes. First, exposure to risk of downward mobility (from *M* to *L*) will cause *M* to support transfers that benefit *L* (the more so the higher the risk).[10] Second, higher low-end inequality will raise *M*'s demand for insurance.[11] The intuitions are simple: since the purpose of insurance is to smooth income across good and bad states of the world, the preferred level of insurance goes up as the risk of falling into the bad

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[9] Upward mobility may be important for other reasons, such as whether middle-class people feel that the system works for them and their offspring. It may also affect preferences for the allocation of public spending, notably spending on education versus pensions (Gingrich and Häusermann 2015). We do not directly measure these differences but do capture the extent to which different classes benefit from particular types of spending (including education and pensions).

[10] This result is intuitive and proved in standard treatments such as Barr (2001) and Moene and Wallerstein (2001). In a broad inter-generational interpretation, transfers to *L* can be thought of as a supplement to the income of children who experience downward mobility.

[11] This result follows from two insights. First, if insurance is a normal good (as commonly assumed), a means-preserving increase in bottom-end inequality that raises *M*'s income will also raise its demand for insurance (proof is in Moene and Wallerstein 2001). Second, a means-preserving drop in *L*'s income, without a rise in *M*'s income, will raise *M*'s demand for insurance because *M* wants more insurance against the risk of a larger loss. This follows from Iversen and Soskice (2001), Result 3, p. 879 and Appendix A.

state rises and as the expected loss of income from such downward mobility goes up. The latter result stands in contrast to Lupu and Pontusson's (2011) social affinity argument, as well as to Meltzer and Richard (1981), since in both models higher relative income of *M* should lead to *less* redistribution.[12]

Above all, insurance is important for our understanding of redistribution because it helps us explain why *L* benefits even if it does not have any political power (analogous to the logic for public goods). Note, however, that this dependence also exposes *L* to the whims of middle-class preferences: if middle-class demand for insurance falls, so does redistribution to the poor. This would be true, for example, if labor markets are becoming more segmented (Alt and Iversen 2017).

Extension (iii): The Importance of "Who Governs?"

We have so far only considered the interests of the middle class under the assumption that it exerts a pivotal influence over government policies. The justification in the Iversen-Soskice model is that *M* is more likely to participate in government coalitions than either *L* or *H*. But we can refine the analysis by explicitly recognizing the difference between *LM* and *MH* coalitions, where the former is expected to be more conducive to *L*'s interests and the latter more conducive to *H*'s interests. Depending on bargaining power within the coalition, which we will approximate below by the share of seats controlled by government parties, *M* can ordinarily guarantee that it

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[12] Note however that higher low-end inequality may also be associated with lower mobility, in which case the total effect is ambiguous. This is ultimately an empirical matter.

will emerge as a net beneficiary in either scenario. Of course, any impact of partisan coalitions presupposes that governments still have capacity to tax and transfer in the age of globalization and rising inequality—something recent work questions (Streeck 2016, Rodrik 2011, Piketty 2014, Huber and Stephens 2001).

Summary

The simple three-class theory of redistribution with M as a pivotal and self-interested actor implies that the benefits of redistributive policies will be concentrated in the middle class and mainly paid for by the rich. Our focus, however, is on dynamics because the current debate is mainly about the distributive consequences of neoliberalism and the rise in market inequality over the past four decades. The theory speaks to those changes with the following set of testable hypotheses:

H1: (a) The H transfer rate is stable in the relative income of H; (b) it is (mildly) increasing when including public goods.

H2: When top-end inequality rises, (a) the M transfer rate also rises, while (b) the L transfer rate only rises when including public goods.

H3: As the share of spending on public goods and insurance rises in total spending, L benefits more from government spending.

H4: Bottom-end inequality leads to higher transfers to L.

H5: Center-left governments increase the L transfer rate; center-right governments reduce it.

A summary dynamic implication of the theory is that the middle class, via the democratic state, is powerful enough to ensure that its post-fisc income keeps up with the overall growth of the economy, despite rising market inequality. This is countered in much contemporary scholarship by the twin conjectures that the political power of the rich is rising with inequality, and that the fiscal state is increasingly constrained by footloose capital.

Empirics

Data and Methods

To examine the dynamics of redistribution to and from different classes, we rely on newly released data from the WID. The WID combines data from household income surveys, tax returns, and national accounts to distribute total national income—GDP net of capital depreciation plus net foreign income—to individuals in a harmonized way across countries.[13]

We focus on advanced democracies for which data are available on both pre- and post-fisc income. Our sample includes the following countries and years: Austria (2004-2016), Belgium (1991-2016), Denmark (1980-2016), Finland (1980-2016), France (1980-2017), Germany (1980-2016), Greece (1980-2016), Ireland (1980-2017), Italy (1980-2016), Netherlands (1980-2016), Norway (1980-2016), Portugal (1980-2016), Spain (1980-2016), Sweden (1980-2016), Switzerland (1982-2016), United Kingdom (1980-2017), and the United States (1980-2019).

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[13] Piketty, Saez, and Zucman (2018) present methods and estimates for the US, while Blanchet, Chancel, and Gethin (forthcoming) do so for Europe.

For our purposes, the distributional national accounts series from the WID are superior to household income surveys, which most previous studies use, for several reasons. First, although surveys generally capture household income fairly well, total household income is far lower than total national income, which makes it difficult to compare with macroeconomic aggregates, such as GDP per capita growth. The WID accounts for all national income, making its income measures consistent with national accounts and enabling us to directly assess the distribution of macroeconomic growth over recent decades. This, in turn, permits us to test directly, and precisely, the broad implication of the baseline theory that the middle class, by using the fiscal levers of the state, can keep up with overall economic growth. Such a test can be performed only indirectly and inaccurately by using previous data.

Second, due to a combination of top-coding, and sampling and nonsampling errors, surveys systematically underestimate the income of top earners (Blanchet, Chancel, and Gethin forthcoming). By combining data from the different sources, the WID can provide much more precise estimates of top incomes compared to surveys.

Finally, surveys capture only direct taxes, leaving out indirect taxes, and also fail to account for the value of in-kind benefits, such as healthcare, education, child and elder care, defense, police, and other public goods. The WID accounts for all taxes, also indirect taxes, and it imputes the value of public goods and in-kind benefits to individuals, permitting us to assess the full redistributive effects of taxes and transfers.

All in all, the WID data permits us to go beyond existing studies by examining the targeting of

taxes and transfers to different groups, with and without accounting for the value of in-kind

benefits, as well as assessing the distribution of macroeconomic growth to different classes. That

means we can directly measure all the key transfer rates defined in the theoretical section.

WID's measures of income refer to the adult population (20 years or older) and split income

equally between spouses. Since the elderly population, which is typically excluded from analyses

of redistribution, is included in the WID, the measures differ slightly from those used in most

previous studies. In addition to labor and capital income, pre-tax income includes replacement

income—which is taxable in most countries—notably pensions and unemployment benefits, net

of contributions.[14] Because pensions are the primary income of the elderly (who typically have

little or no market income), including pensions in post-tax rather than pre-tax income would

mechanically inflate redistribution in countries and years with large older populations, limiting

the comparability of redistribution across countries and time.[15]

Including unemployment benefits in pre-tax rather than post-tax income does not matter for our

evidence on post-tax income growth, but it slightly biases our measures of redistribution to low-

income individuals in a downward direction because benefits go to workers who would

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[14] The WID measures also differ from standard survey measures in that the WID distributes
corporate retained earnings to the owners of capital and includes imputed rent for homeowner-
occupiers. Increasing wealth accumulation and concentration are consequently reflected in the
income series.
[15] The alternative is to exclude the elderly from the analysis, which is a common approach in
previous studies. Yet, this arbitrarily alters the allocation of individuals to income classes, and it
implicitly ignores the interests of a growing group of voters.

otherwise be coded as having zero pre-tax income. Yet, since unemployment spending accounts

for only about 1.2% of GDP on average, and since the overall generosity of unemployment

programs have remained fairly stable in most of the countries in our sample, whether

unemployment benefits are counted as pre-tax or post-tax income have little effect on the trends

in our redistribution measures.[16] To account for the little effect that there might be, we include a

control for the unemployment rate in our statistical models.

The WID provides two measures of post-tax income, which equal pre-tax income minus taxes

(direct and indirect) plus transfers. The difference between the two measures is that one excludes

the value of in-kind benefits (public goods) from transfers, whereas the other includes it. The

value of in-kind benefits has yet to be fully incorporated into studies of redistribution, and it

remains an important task for future research to explore ways of reliably doing so. We allocate

public goods and in-kind transfers as an equal lump-sum to all individuals, consistent with recent

estimates computed by the OECD.[17] In Appendix D, Figures D1-D3, we examine redistribution

under the alternative assumption that only spending on health has redistributive effects while all

other benefits are distributed proportional to post-tax disposable income, as assumed in Piketty,

Saez, and Zucman (2018) and Blanchet, Chancel, and Gethin (forthcoming): this lowers the level

of redistribution, but the trends are very similar compared to the scenario when all public goods

are distributed lump-sum.

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[16] We provide empirical evidence in Appendix C, where we show that there has been no general downward trend in the generosity of unemployment or welfare programs since 1980.

[17] The only attempt to measure the distributional impact of in-kind benefits is OECD, which provides a cross-national estimate for a single year (2007). That estimate is very consistent with assuming an equal lump-sum distribution (Verbist, Förster, and Vaalavuo 2012).

Based on the pre-tax and post-tax income measures, we calculate two measures of redistribution. The first captures cash transfers, net of taxes, whereas the second adds the value of in-kind benefits. Each of these measures can be expressed in either relative or absolute terms. The relative transfer rate is equivalent to the theoretical definition of transfer rates: It is the difference between a group's pre-tax and post-tax income expressed as a percentage of the group's post-tax (net) income. The absolute transfer rate expresses net transfers as a percentage of national income, and we use these to put the net transfers to each group in macroeconomic perspective.

We also follow the theory by calculating transfer rates for three groups: *L*, *M*, and *H*, which we define to consist of the bottom 20%, middle 20%, and top 1% of the income distribution. Although this grouping does not account for the entire income distribution, it better enables us to zero in on the targeting of taxes and transfers to and from different classes. The top 1% has of course also played a central role in the academic and public debate about inequality, and we want our findings to speak directly to that debate. We recognize the usefulness of accounting for the entire income distribution but doing so does not substantively alter our conclusions (see Appendix A).

Redistribution Since 1980

Figure 2 plots the absolute and relative transfer rates of *L*, *M*, and *H* from 1980 to 2016. The red, green, and blue dots (triangles) represent the transfer rates of the bottom 20%, middle 20%, and top 1% exclusive (inclusive) the value of in-kind benefits for each country-year observation. The colored lines are local polynomial smoothers, illustrating differences in average transfer rates between groups at any one point in time as well as trends over time.

Looking first at differences in levels of absolute transfer rates (left panel), we see that, on average, *L* and *M* are net beneficiaries of redistribution, whereas *H* is always a net contributor. We also see that on average transfers are strictly progressive with *L*'s average transfer rate being greater than that of *M* in all years. Yet in some country-years, the transfer rate of *M* is greater than that of *L,* which is mainly due to variation in *L*'s transfer rate. From a theoretical perspective, this is consistent with *M* exerting a stable influence on transfer rates, while *L*'s ability to redirect transfers to the bottom depends on its (varying) bargaining power. A contributing factor may be the business cycle, which tends to affect low-end market incomes disproportionately, resulting in more volatile transfer rates (Hoynes, Miller, and Schaller 2012).

The figure further shows, as expected, that accounting for the value of in-kind benefits raises *L*'s transfer rate significantly. It has a similar, though smaller, impact on transfers to *M*, whereas it increases the share of income that the rich give up to redistribution. Taking account of the redistributive effects of in-kind welfare programs is therefore important to the study of redistribution.

Figure 2. Absolute and Relative Transfer Rates in 17 Advanced Democracies, 1980-2016.
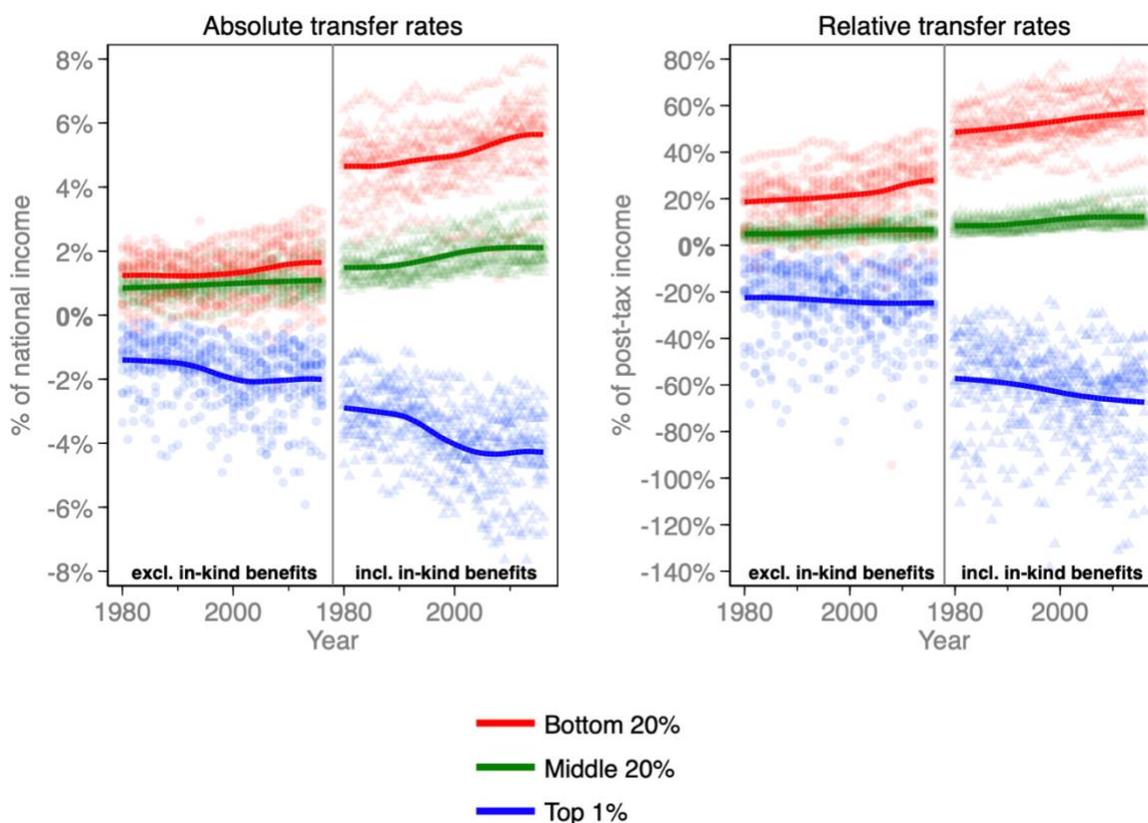
Note: In Switzerland the series starts in 1982, in Belgium in 1991, and in Austria in 2004. The results are similar when including only countries for which full time series are available.

A closer look at the trends over time reveals that the top 1% has given up an *increasing* share of total income to redistribution since 1980. Whereas the tax and transfer system reduced the income share of the top 1% by 1.4% of national income in 1980, its income share was reduced by 2.0% in 2016. When including in-kind transfers, the drop is more pronounced with an average change from 2.9% to 4.3%. By contrast, the middle-income quintile has increased its absolute transfer rate from 0.9% of national income in 1980 to 1.1% in 2016. Again, when we include in-kind transfers, we see a more pronounced change from 1.5% to 2.1%. Finally, the bottom-

income quintile has, on average, experienced the greatest increases in transfer rates. In 1980, the national income share of the bottom 20% increased by 1.2% after taxes and transfers, whereas it increased by 1.6% in 2016. These numbers are 4.6% and 5.5% when including in-kind transfers.

If we measure net transfers relative to post-tax income, we get a slightly different pattern because of variation across classes in pre-tax income (right panel). For H the cash transfer rate is essentially constant, mirroring the theoretical prediction when assuming that M sets the tax rate on H to maximize its post-fisc income (H1a), but when in-kind benefits are included, the transfer rate has been gradually increasing (in absolute terms) from 57% to 68% of H's post-tax income between 1980 and 2016. This result is also as expected because in-kind benefits approximate the Meltzer-Richard model assumption that benefits are lump-sum, and therefore should be rising in inequality (H1b).

Since the pre-fisc income shares of L and M have been trending downward, the increases in absolute transfer rates make the trends in relative transfer rates even more pronounced. M has experienced an increase in cash transfers from 5% to 7% of its post-tax income and L from 18% to 27%. The former is again as expected (H2a), but the improvement for L is more puzzling. It cannot be explained by rising top-end inequality when in-kind benefits are excluded (see H2b), and many analyses of labor markets imply that risks have grown more bifurcated, with M becoming more secure and L less secure. That should lower the importance of insurance motives in the middle class (Rueda 2007; Rehm 2016; Alt and Iversen 2017). Rising house prices, which has been a strong driver of wealth accumulation in the middle class, likewise suggest that demand for social insurance among middle-class homeowners has declined (Ansell 2014). On

the other hand, as many in *M* drop into *L* when they retire, *M*'s incentives to insure themselves against illness and old age may be growing with aging populations. Healthcare benefits constitute a large and increasing fraction of public goods consumption in every country, and they are concentrated among the elderly who tend to live on relatively low retirement incomes. Indeed, the trend for *L* becomes more pronounced when in-kind benefits, such as those related to healthcare and nursing homes, are included. That is consistent with H2b.

Overall, we find that the democratic state has played a major role in responding to rising pre-tax income inequality since 1980.[18] The rich pay a roughly constant share of their (rising) pre-tax incomes into the transfer system, and as a result *L* and *M* have been able to keep up with the overall expansion of the economy much better than one would have predicted from the evolution of pre-tax incomes. This is evident from Figure 3, which shows the evolution of real post-tax income of *L* and *M* compared to the mean income in each country. On average, for European countries the income growth of *L* and *M* are within 5% of the mean income growth, which has exceeded 50% on average (last panel in Figure 3). Considering the rise in pre-fisc inequality, this has only been possible because of a highly redistributive state that has responded to the economic interests of the majority.

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[18] We get similar results if we measure redistribution as the percentage change in Gini from before to after taxes and transfers: In all countries, redistribution has been maintained (Appendix Figures D4 and D5).

Figure 3. The Evolution of Low and Middle Incomes (Post-Tax) Since 1980
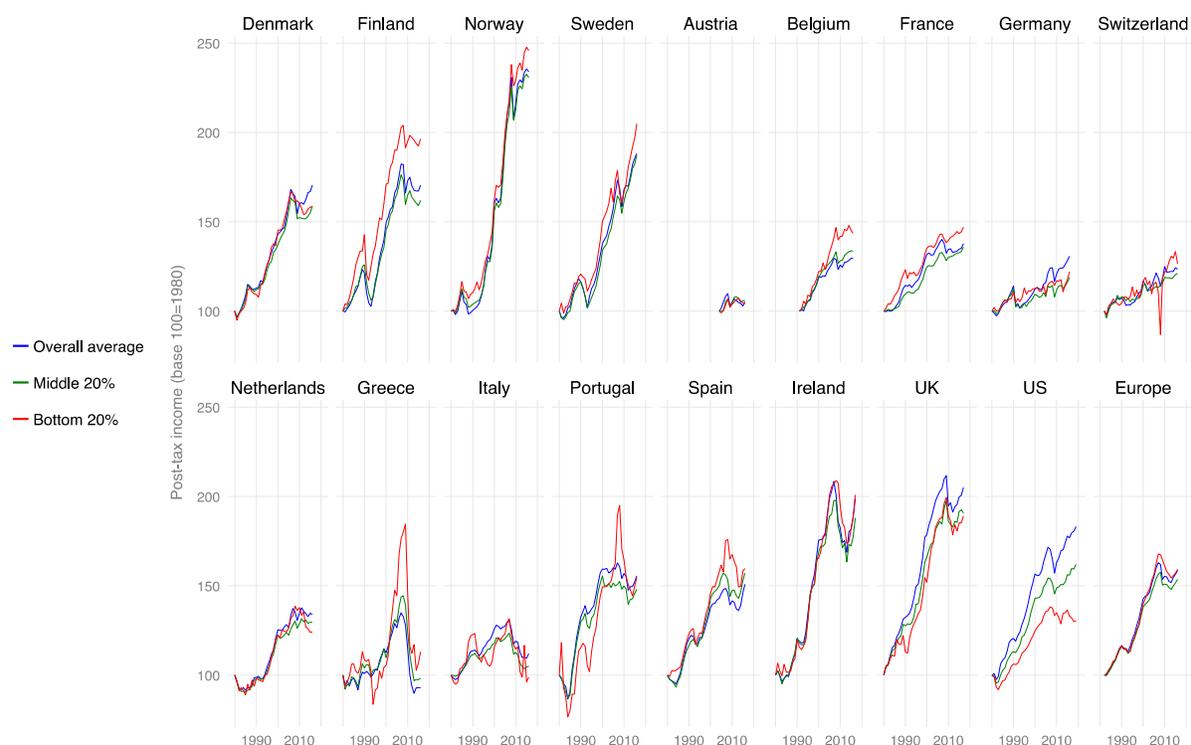
Note: The figure shows the evolution of real post-tax income (including in-kind transfers and public goods) for the bottom 20% and middle 20% compared to the mean income. In Austria, Belgium, and Switzerland the base 100 is 2004, 1991, and 1982. The graph for Europe includes all the European countries except Austria and Belgium and has base 100 in 1982.

The US is a major outlier, however. While the overall economy expanded by 77% between 1980 and 2016, *M* and especially *L* experienced much lower growth rates of 56% and 33%. And contrary to Europe, *L*'s income growth in the US is largely driven by greater public goods provision. When we allocate in-kind spending on other domains than health proportional to post-tax disposable income, thereby assuming that only in-kind transfers on health have redistributive

effects, *L*'s income has grown just 13% in real terms since 1980 (the growth in *M*'s income drops

marginally from 56% to 51%, see Appendix Figure D6). The US is the only advanced

democracy in which greater economic prosperity has been distributed so unequally. We will

consider likely violations of theoretical assumptions as causes for this deviation in the next

section.

The Drivers of Change

What is driving changes in transfer rates over time? To answer this question, and more directly

test the hypotheses laid out above, we estimate a set of general error-correction models (GECM).

GECMs enable us to examine the causal dynamics of rates of transfers to and from each income

class in both the short and long run, and they are therefore well-suited to test our hypotheses.

Using GECMs require that all series are either stationary or co-integrated, and augmented

Dickey-Fuller and Levin-Lin-Chu tests indicate that the series are stationary. More concretely,

we estimate a set of regressions of the following form:

$$\Delta \tau_{i,t} = \phi \cdot \tau_{i,t-1} + \sum_{k=1}^{K} \beta_{1k} \cdot \Delta x_{k,i,t} + \sum_{k=1}^{K} \beta_{2k} \cdot x_{k,i,t-1} + \alpha_i + \varepsilon_{i,t},$$

where $\Delta \tau_{i,t}$ denotes changes in transfer rates between year *t-1* and *t* in country *i* , $\tau_{i,t-1}$ is the

lagged level of the transfer rate, and ϕ captures the speed with which transfer rates return to their

equilibrium after a shock to the series.[19] To ensure that (overly) restrictive assumptions about

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[19] Bias-corrected Lagrange Multiplier tests of serial correlation for fixed effects models (Born
and Breitung 2016) indicate that the errors are serially uncorrelated when including one lagged
level of the dependent variable. Our results are robust to including a second lagged level of the
dependent variable and using Prais-Winsten regressions, which would remove any potentially
remaining serial correlation (Appendix Tables E1 and E2).

how the effects of certain variables play out over time do not bias our inferences, all regressors,

k, are included both as changes ($\Delta x_{k,i,t}$) and lagged levels ($x_{k,i,t-1}$). β_{1k} captures the short-run

effect of a change in regressor k on the transfer rate, whereas the total long-run effect is given by

$\frac{\beta_{2k}}{\phi}$ (De Boef and Keele 2008). Because our interest lies in patterns of change over time, we

include country-specific intercepts (α_i); these also ensure that the results are not biased by time-

invariant factors that correlate with both the transfer rates and regressors.[20] Finally, while the

models we present here do not include time trends, we show in Appendix Tables E3 and E4 that

the main results are substantively similar when doing so.

To enable tests of H1, H2, and H4, we include among the regressors measures of top- and

bottom-end income inequality, which we measure as the pre-tax income share ratio between the

top 1% and middle 20% ($\frac{y_{p99p100}}{y_{p40p60}}$) and that between the middle 20% and bottom 20% ($\frac{y_{p40p60}}{y_{p0p20}}$).

For the models in which the dependent variable includes the value of public goods and in-kind

transfers, we add a variable that captures public goods consumption as a share of national

income, which allows us to test H3. To test the final hypothesis, H5, we include a cumulative

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[20] Although including a lagged dependent variable alongside unit fixed effects introduces a bias in OLS parameter estimates, Beck and Katz (2011) still recommend using OLS to model dynamics and unit heterogeneity in TSCS data, since the bias is small when $T>20$, and since OLS outperforms more complicated models that seeks to remove the bias. As $T=33$ on average in our models, the bias is indeed small, and we therefore follow the advice of Beck and Katz (2011) in using OLS.

measure of left-party participation in the government.[21] As controls, we include measures of

capital market integration (Chinn and Ito 2006) and trade openness (sum of imports and exports

as a share of GDP), which capture the potential impact of globalization on class power and

transfer rates. We also include a measure of the marriage rate to control for changes in family

structure over time, and the unemployment rate to account for the effect of automatic stabilizers

on net transfers.[22]

Table 1 reports the results for the relative transfer rate of the top 1% (models 1 and 2), middle

20% (models 3 and 4), and bottom 20% (models 5 and 6), excluding and including in-kind

transfers.[23] We begin with the results for income inequality, which strongly support the

theoretical predictions. To best see this, we illustrate in Figure 4 the total long-run effects of one

standard deviation changes in top- and bottom-end inequality on net transfer rates, calculated

from the estimates of Table 1 and Appendix Tables E7 and E8.

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[21] We follow Huber and Stephens (2001) and measure partisanship as the cumulative share of government-controlled parliamentary seats held by left parties since 1980 using data from Armingeon et al. (2019).

[22] To maintain full time series, we have imputed a few values on trade openness, capital market openness, and the marriage rate. The results are robust to using the unimputed series (Appendix Table E5).

[23] *L*'s income dropped massively in the wake of the financial crisis in Switzerland (2008-2009), which makes these years outliers (for visual evidence see Figure 3), and we therefore omit them from the models reported in Table 1. Including the outliers makes the results for *L* stronger, while it does not affect the results for either *H* or *M* (Appendix Table E6).

Table 1. Determinants of Relative Transfer Rates

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.31*	-0.29*	-0.35*	-0.25*	-0.49*	-0.32*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ Top-end inequality	2.67	-0.48	4.10*	10.18*	5.51	8.67*
	(5.40)	(7.39)	(0.76)	(0.69)	(3.62)	(1.49)
Top-end inequality $_{t-1}$	0.74	-2.57	1.97*	3.40*	0.69	3.49*
	(2.25)	(3.30)	(0.37)	(0.54)	(1.72)	(0.71)
Δ Bottom-end inequality	0.44	0.73	-0.25*	-0.22*	3.81*	4.79*
	(0.52)	(0.67)	(0.10)	(0.09)	(0.75)	(0.24)
Bottom-end inequality$_{t-1}$	-0.08	-0.14	0.06	0.07	1.00	1.56*
	(0.43)	(0.57)	(0.07)	(0.07)	(0.56)	(0.28)
Δ Partisanship (left)	-0.03	-0.15	0.05	0.04	0.09	-0.07
	(0.82)	(1.05)	(0.11)	(0.09)	(0.59)	(0.19)
Partisanship (left)$_{t-1}$	-0.06	-0.15	-0.00	-0.02	0.23*	0.06*
	(0.10)	(0.12)	(0.02)	(0.01)	(0.06)	(0.02)
Δ Capital market openness	5.24	5.36	0.24	0.21	-9.92*	-0.18
	(4.33)	(5.44)	(0.76)	(0.63)	(4.93)	(1.61)
Capital market openness$_{t-1}$	-3.71*	-4.87*	0.44	0.40	0.30	0.23
	(1.65)	(2.21)	(0.26)	(0.22)	(1.45)	(0.45)
Δ Trade openness	-7.42	-6.28	1.78	1.21	-3.02	-1.90
	(5.67)	(7.32)	(0.91)	(0.79)	(3.62)	(1.46)
Trade openness$_{t-1}$	1.85	1.75	0.52	0.51	0.55	-0.31
	(2.51)	(3.25)	(0.36)	(0.31)	(1.29)	(0.57)
Δ Public goods consumption		-70.29		16.19*		66.16*
		(52.37)		(4.68)		(11.01)
Public goods consumption$_{t-1}$		-21.91		3.71		29.03*
		(27.20)		(2.75)		(6.62)
R-squared	0.16	0.16	0.25	0.41	0.33	0.68
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts and controls for the marriage rate and unemployment. For the full set of results, see Appendix Table E9.

The top panel of the figure shows that rising top-end inequality does not affect H's cash transfer rate. For the top 1%, there is (unsurprisingly) some uncertainty around the estimate, but for the larger top-10% and top-20% groups, the long-run multipliers are quite precisely estimated null effects. Yet because top-end inequality has been driven by H's income increases, these null effects are in fact quite substantial in terms of national income. For a one standard deviation rise in top-end inequality, the top 1% pays about 0.2% more of national income into the system, while the top 10% and top 20% pay about 0.3% and 0.2% more.[24] These results are consistent with optimal taxation theory and H1a: when the rich get richer, their tax payments rise in absolute terms but remain stable relative to post-tax income.

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[24] We report the results for absolute transfer rates in Appendix Table E10 and Figures D7 and D8.

Figure 4. Long-Run Effects of Top and Bottom-End Inequality on Transfer Rates
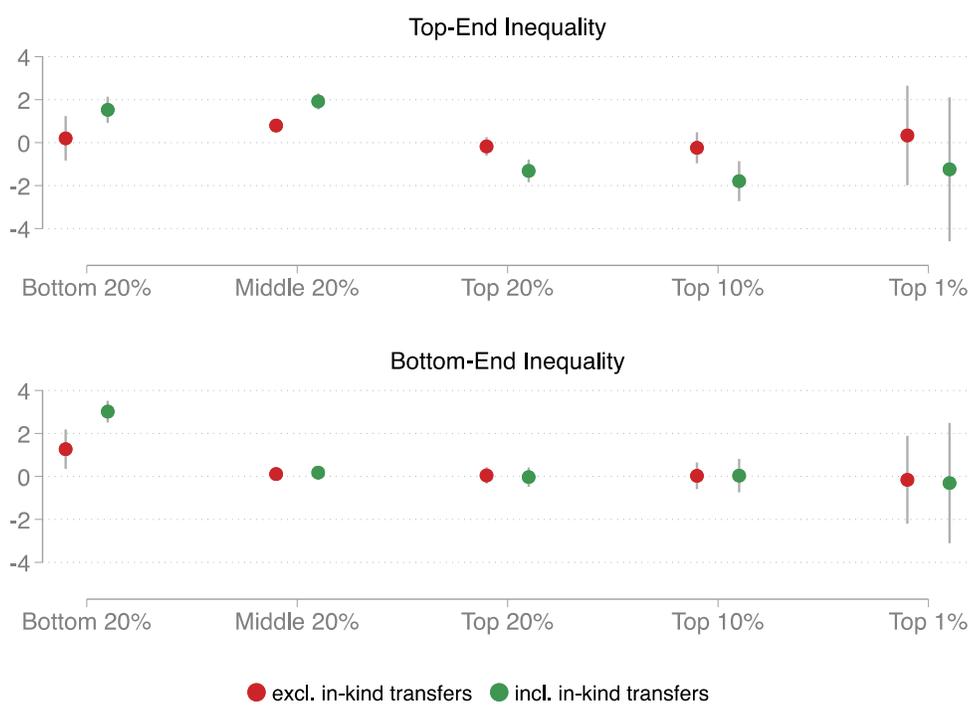
Note: The figure shows the total long-run effect of a one standard deviation change in top or bottom-end inequality on the relative transfer rate of a group with and without including in-kind transfers. The long-run multipliers are estimated using the Bewley (1979) transformation based on the estimates in Table 1 and Appendix Tables E7 and E8.

When we include public goods and in-kind benefits in net transfers, the effects of top-end inequality turn negative as predicted by H1b. In this scenario, *H*'s transfer rate increases by about 1.2% of post-tax income for the top 1% and about 1.8% and 1.3% for the top decile and quintile richest individuals. Again, these effects are large in terms of national income: The top

1% pays 0.6% more of national income into the system when top-end inequality rises by one standard deviation; the top 10% and top 20% pay about 0.9% and 0.8% more.

For *M*, a one standard deviation increase in top-end inequality raises its cash transfer rate by 0.8% of its post-tax income; including the value of in-kind transfers, the increase in net transfers to *M* is 1.9%. These effects are equivalent to raising *M*'s transfer rate by about 0.1% and 0.3% of national income, and they are consistent with H2a and the theoretical prediction that rising top-end inequality drives up transfers to *M*.

Whereas rising top-end inequality increases redistribution of income from *H* to *M*, the relative cash transfer rate of *L* remains unaffected. But since *L* also benefits from increased in-kind (non-excludable) transfers to *M*, and since such transfers rise with top-end inequality, rising top-end inequality also raises *L*'s transfer rate when such benefits are included. The effect equals about 1.5% of *L*'s post-tax income and 0.1% of national income. This supports H2b and suggests that recent decades' increases in transfers to the poor are driven in significant measure by middle-class demand for public goods and social insurance, from which *L* cannot usually be excluded. We are not able to fully separate out public goods spending from social insurance—healthcare spending, for example, has aspects of both—but it seems safe to assume that *L* has benefitted from both.

The bottom panel of Figure 4 shows that rising bottom-end inequality increases transfers to *L* while it has no other long-run effects. A one standard deviation rise in bottom-end inequality increases *L*'s cash transfer rate by 1.3% of *L*'s post-tax income. When including in-kind

transfers, L's transfer rate increases by 3.0% of its post-tax income, which is equivalent to about 0.1% of national income. These results corroborate H4 and the theoretical prediction that when bottom-end inequality rises, M is willing to pay a higher insurance premium. Interpreting insurance broadly, M is likely to want to ensure that it can always receive generous in-kind benefits, such as care in the case of illness, good elderly care for its parents, and good education for its children, in case of downward mobility.

Turning to the effects of partisanship, the results of Table 1 corroborate H5 and show that who controls the government still matters in the post-1980 world, since left party governments redirect transfers to L. As shown in the top panel of Figure 5, the magnitude of the effect suggests that a one standard deviation increase in left partisanship increases cash transfers to L by about 2.4% of L's post-tax income in the long run, which in terms of national income is a non-trivial effect of 0.2%. When we include in-kind benefits, the effect weakens to about 1% of L's post-tax income, yet it remains constant, and thus substantively similar, in terms of national income. This result suggests that the effect of left partisanship primarily reflects increases in cash transfer to L, rather than in-kind public goods, which M tends to support regardless. For M, the results suggest that left partisanship is unrelated to the transfer rate, whereas for H they indicate that rising transfers to L under left party rule are paid for by greater tax payments by high-income individuals. While the effects are imprecisely estimated for the top 1%, they are significant for both the top 10% and top 20%, despite being of slightly smaller magnitude. In Appendix B we show that left partisanship also reduces pre-fisc inequality, and we discuss likely sources of this reinforcing effect.

Figure 5. Long-Run Effects of Left Partisanship and Public Goods Consumption on Transfer

Rates
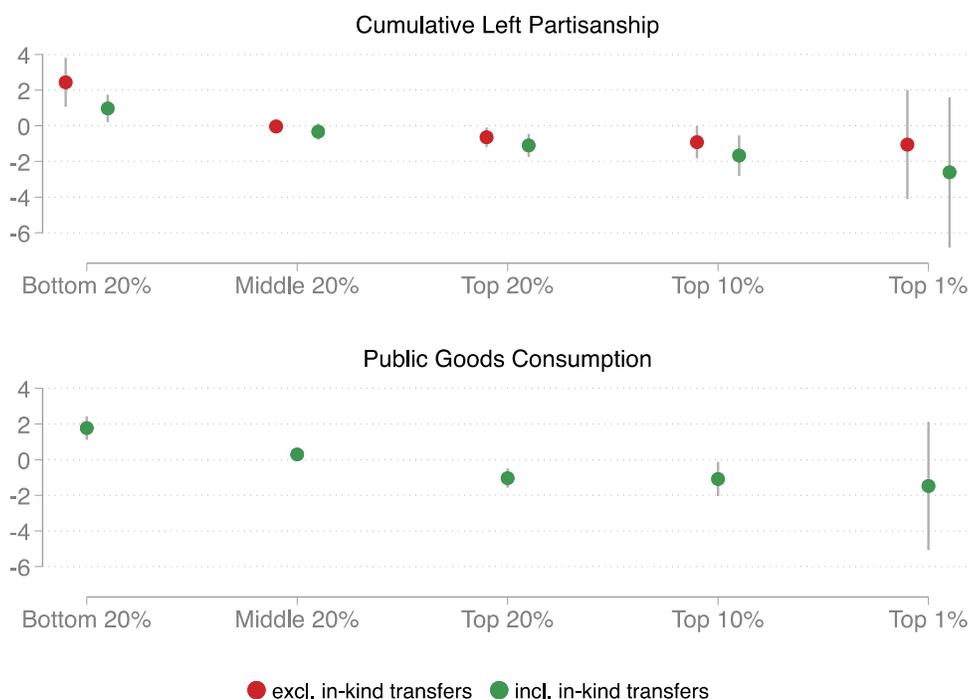
Note: The figure shows the total long-run effect of a one standard deviation change in left partisanship or public goods consumption on the relative transfer rate of a group with and without including in-kind transfers. The long-run multipliers are estimated using the Bewley (1979) transformation based on the estimates in Table 1 and Appendix Tables E7 and E8.

The findings for public goods consumption, shown in the bottom panel of Figure 5, demonstrate

the importance of public goods for *L*'s transfer rate, with a one standard deviation increase in

public goods consumption being associated with an increase in transfers to *L* by about 1.8% of

L's post-tax income (an effect equivalent to 0.3% of national income). This result is consistent

with H3 and helps explain the puzzling increases in transfers to *L* discussed above. While the

increases in public goods consumption that have occurred in most countries since 1980 have benefitted *L,* they are almost certainly not a result of increased power of *L*. Left governments are not becoming more common over time, and when they are in power, they mostly affect cash transfers to *L* (as we just saw). Rather, *L* benefits indirectly from the strong position of *M* to demand generous public goods provision and social insurance, notably education, healthcare, and nursing from which *L* typically cannot be excluded. Figure 5 also shows that increases in in-kind benefits tend to slightly raise *H*'s transfer payments, meaning that, as opposed to *L* and *M*, *H* is a net contributor of more generous in-kind benefit programs (again the coefficients are more precisely estimated for the top 10% and 20%).

Finally, the results for capital market openness and trade openness in Table 1 lend little support to the notion that globalization has undermined the power of the state or the middle class to tax the rich. In fact, greater capital market openness appears to be negatively associated with *H*'s relative transfer rate in the long run, meaning that opening up financial systems has gone hand-in-hand with an *increased* share of income that the rich contribute to taxes. These findings clearly contradict any simple "race to the bottom" globalization story.

In addition to the alternative model specifications already discussed, we show in Appendix E that our main results are substantively similar when (1) using one-way and two-way fixed effects models, (2) distributing only in-kind transfers on health as an equal lump sum, (3) and including additional controls for the share of elderly, female labor force participation, and union density. We also show that the results are robust to accounting for increasing house prices, which have

contributed to rising wealth accumulation and lowered demand for social insurance among middle-class homeowners (Ansell 2014).

The US Exception

Our examination of the data from the WID, by far the most comprehensive database on income distribution and redistribution, largely supports a simple theory of democracy where the middle class is pivotal and the poor benefits indirectly from spending on public goods and insurance against downward mobility. Democracy thus lifts all boats and ensures broad sharing of growing economic prosperity. Yet, the US stands out as a major outlier. Although the middle class has seen a significant rise in net incomes, it has not kept up with overall economic growth. The poor have done even worse.

American exceptionalism is important for three reasons. First, the gloomy predictions about the capacity of democracy to counter rising inequality builds heavily on the US experience, but this experience cannot and should not be generalized. Second, while the US is an outlier, it is at the same time far and away the largest country among affluent democracies, so it is of intrinsic interest. Finally, the case can help us understand the institutional conditions that need be satisfied for the simple theory of democracy to apply. In this section we briefly sketch an explanation of why the US is different, which draws on existing literature and helps highlight crucial theoretical assumptions. As most comparativists would agree, case studies are more useful in generating than in testing hypotheses, so our reflections are meant more as conjectures than clinching evidence.

There are two obvious violations of the theoretical assumptions that strike us as important in accounting for the US case:

(1) *Countermajoritarian institutions*. The three-class theory assumes majoritarian rule with each vote counting equally, but American institutions accord overrepresentation to conservative rural areas in Congress and the Electoral College (Rodden 2019). Institutions are also designed to make policy change difficult by creating many veto points. For these reasons, the Republican Party has been able to govern with minority support, or to block majority rule, for long periods of time (Hacker and Pierson 2010). This is not a new situation, of course, but it has made redistributive responses to rising inequality politically fraught.

Two aspects of this institutional reality stand out in the context of the transition to a knowledge economy. First, there is an increasing urban-rural divide with opposition to taxation and redistribution concentrated among the overrepresented rural districts and states (Hacker and Pierson 2020). Second, the American lobbying system confers exceptional influence to business interests, and these interests are particularly influential in the Republican Party (Hertel-Fernandez 2018, 2019; Rahman and Thelen 2019; Hacker et al. 2021). Major new redistributive programs, and progressive adjustments to the tax code, stand less of a chance of passage in this context.

(2) *Race*. The theory assumes the political preeminence of class, but race is a widely recognized dimension of distributive politics in the US (Gilens 2009; Cramer 2016;

Alesina and Glaeser 2004). Even though racism has been a constant feature of American politics, we believe it affects our results dynamically for two reasons. First, rising poverty and risk of poverty have been concentrated among minorities, which has undermined the demand for insurance among the majority. Second, a declining marriage rate has been a source of inequality because poor household members are no longer supported by their spouses, and this decline has been more pronounced among poor minorities. Single Black mothers—the targets of Reagan's racialized campaign against welfare—get little sympathy among the white majority. Many European countries have seen similar declines in marriage rates, but the state has compensated for the implied rise in inequality through increased family allowances and related child benefits.

This conjecture finds some direct support in the WID data because when the effect of changing marriage rates is eliminated by assigning income to each spouse separately, the gap in post-tax income growth for L and the mean income does not increase by nearly as much (Appendix Figure D9).

Again, our interpretation of American exceptionalism should be seen as conjectures rather than findings, but it does highlight that standard arguments about democracy, which are broadly captured by the three-class theory of redistribution, depend a great deal on the assumptions of majority rule and the high salience of economic interests.

Conclusion

Thomas Piketty, one of the researchers behind the data we are using, argued in his influential

2014 book that an increasing share of income was going to the richest 1%, and that this implied a

growing distortion or even subversion of democracy. This may be a reasonable inference to draw

from the rise in market inequality, but advanced democracies look a lot better when we consider

the role of the state in redistribution. Across rich democracies, rising top-end inequality has

raised the amount of taxes paid by the rich, while transfers to the middle, and usually also the

bottom, have increased. This shift does not appear to be inhibited by economic globalization.

These findings suggest that as the rich become richer, the middle uses its power in the

democratic state to ensure that the growing prosperity is shared. Relative to mean income the

position of the middle in the net income distribution is essentially constant in most advanced

democracies. The findings are remarkably well accounted for by a simple three-class theory of

democracy, and they are more consistent with classic notions of democracy than with the idea

that capitalism subverts democracy.

Yet, the analysis also highlighted a puzzle and a major outlier. The puzzle is that redistribution to

the bottom has been maintained, and even increased, over time in most countries, contrary to the

widespread belief that the poor have lost out. The reason can hardly be political power—by all

accounts the left and unions are weaker today than 30 years ago—and while the middle class will

support transfers to the bottom out of concerns about services and downward mobility, most

analyses point to lower mobility and concentration of risks in the bottom half of the distribution.

The rising availability of private alternatives in the middle classes should also reduce support for

solidaristic welfare state spending and so should rising house prices and the associated

accumulation of wealth in the middle class. This leaves a great deal of unexplained variance. After years of focusing on the top, renewed scholarly attention to bottom-end inequality is warranted.

The outlier is the US. Although the overall transfer rate from the rich has not dropped, the implied redistribution has been insufficient to sustain the position of the middle class in the post-fisc income distribution. The bottom-income quintile has fared even worse, and its declining relative position is dramatic in comparison to other advanced democracies. One may see this as validation of some of the gloomier predictions about capitalism undermining the democratic state. To us the evidence instead points to the resilience of a strong state in most advanced democracies where majority rule is more consequential than ever.

References

Acemoglu, Daron, and James A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. Cambridge, UK: Cambridge University Press

Ahlquist, John. 2017. "Labor Unions, Political Representation, and Economic inequality." *Annual Review of Political Science* 20: 409-432.

Aldrich, John H. 1995. *Why Parties? The Origin and Transformation of Political Parties in America*. Chicago, Ill.: University of Chicago Press.

Alesina, Alberto, and Edward Glaeser. 2004. *Fighting Poverty in the US and Europe: A World of Difference*. New York, NY: Oxford University Press.

Alt, James, and Torben Iversen. 2017. "Inequality, Labor Market Segmentation, and Preferences for Redistribution." *American Journal of Political Science* 61 (1): 21-36.

Ansell, Ben. 2014. "The Political Economy of Ownership: Housing Markets and the Welfare State" *American Political Science Review* 108 (2): 383-402.

Armingeon, Klaus, Virginia Wenger, Fiona Wiedemeier, Christian Isler, Laura Knöpfel, David Weisstanner, and Sarah Engler. 2019. "Comparative Political Data Set 1960–2018." Bern, Switzerland: Institute of Political Science, University of Berne.

Autor, David H., Frank Levy, and Richard J. Murnane. 2003. "The Skill Content of Recent Technological Change: An Empirical Exploration." *Quarterly Journal of Economics* 118 (4): 1279–1333.

Baldwin, Peter. 1990. *The Politics of Social Solidarity: Class Bases of the European Welfare State, 1875–1975*. Cambridge, UK: Cambridge University Press.

Barr, Nicholas. 2001. *The Welfare State as Piggy Bank: Information, Risk, Uncertainty, and the Role of the State*. New York, NY: Oxford University Press.

Bartels, Larry M. 2008. *Unequal Democracy: The Political Economy of the New Gilded Age*. Princeton, NJ: Princeton University Press.

Beck, Nathaniel, and Jonathan Katz. 2011. "Modeling Dynamics in Time-Series-Cross-Section Political Economy Data." *Annual Review of Political Science* 14: 331-352.

Bewley, R. A. 1979. "The Direct Estimation of the Equilibrium Response in a Linear Model." *Economic Letters* 3 (4): 357–61.

Blanchet, Thomas, Lucas Chancel, and Amory Gethin. Forthcoming. "Why is Europe More Equal Than the United States?" *American Economic Journal: Applied Economics*

Born, Benjamin, and Jörg Breitung. 2016. "Testing for Serial Correlation in Fixed-Effects Panel Data Models." *Econometric Reviews* 35 (7): 1290-1316.

Busemeyer, Marius R., and Torben Iversen. 2020. "The Welfare State with Private Alternatives: The Transformation of Popular Support for Social Insurance." *The Journal of Politics* 82 (2): 671-686

Chinn, Menzie D., and Hiro Ito. 2006. "What Matters for Financial Development? Capital Controls, Institutions, and Interactions." *Journal of Development Economics* 81 (1): 163–92.

Cramer, Katherine J. 2016. *The politics of resentment: Rural consciousness in Wisconsin and the rise of Scott Walker*. Chicago, Ill: University of Chicago Press.

De Boef, Suzanne, and Luke Keele. 2008. "Taking time seriously." *American Journal of Political Science* 52 (1): 184–200.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York, NY: Harper.

Elkjær, Mads A. and Michael B. Klitgaard. Forthcoming. "Economic Inequality and Political Responsiveness: A Systematic Review." *Perspectives on Politics*.

Elkjær, Mads A. and Torben Iversen. 2020. "The Political Representation of Economic Interests: Subversion of Democracy or Middle-Class Supremacy?" *World Politics* 72 (2): 254-290.

Esping-Andersen, Gøsta. 1990. *The Three Worlds of Welfare Capitalism*. Princeton, NJ: Princeton University Press.

Feldstein, Martin. 1995. "The Effects of Marginal Tax Rates on Taxable Income: A Panel Study of the 1986 Tax Reform Act" *Journal of Political Economy* 103 (3): 551–72.

Feldstein, Martin. 1999. "Tax Avoidance and the Deadweight Loss of the Income Tax" *Review of Economics and Statistics* 81 (4): 674-80.

Gingrich, Jane, and Silja Häusermann. 2015. "The Decline of the Working-Class Vote, the

    Reconfiguration of the Welfare Support Coalition and Consequences for the Welfare State"

    Journal of European Social Policy 25 (1): 50-75.

Gilens, Martin. 2009. *Why Americans Hate Welfare: Race, Media, and the Politics of*

    Antipoverty Policy. Chicago, Ill: University of Chicago Press.

Gilens, Martin. 2012. *Affluence and Influence: Economic Inequality and Political Power in*

    America. New York, N.Y., and Princeton, N.J.: Russell Sage Foundation and Princeton

    University Press.

Gruber, Jon, and Emmanuel Saez. 2002. "The Elasticity of Taxable Income: Evidence and

    Implications." *Journal of public Economics* 84 (1): 1-32.

Hacker, Jacob, and Paul Pierson. 2010. *Winner-Take-All Politics*. New York, NY: Simon and

    Schuster.

Hacker, Jacob, and Paul Pierson. 2020. *Let Them Eat Tweets: How the Right Rules in an Age of*

    Extreme Inequality. New York, NY: Liveright Publishing.

Hacker, Jacob, Alexander Hertel-Fernandez, Paul Pierson, and Kathleen Thelen, eds. 2021. *The*

    American Political Economy: Politics, Markets, and Power. Cambridge, UK: Cambridge

    University Press

Hassel, Anke, and Bruno Palier, eds. 2020. *Growth and Welfare in Advanced Capitalist Economies: How Have Growth Regimes Evolved?* Oxford, UK: Oxford University Press.

Hertel-Fernandez, Alexander. 2018. *Politics at Work: How Companies Turn Their Workers into Lobbyists*. New York, NY: Oxford University Press.

Hertel-Fernandez, Alexander. 2019. *State Capture: How Conservative Activists, Big Businesses, and Wealthy Donors Reshaped the American States—and the Nation*. New York, NY: Oxford University Press.

Hoynes, Hilary, Douglas Miller, and Jessamyn Schaller. 2012. "Who Suffers during Recessions?" *Journal of Economic perspectives* 26 (3): 27-48.

Huber, Evelyne, and John D. Stephens. 2001. *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. Chicago, Ill.: University of Chicago Press.

Iammarino, Simona, and Philip McCann. 2013. *Multinationals and Economic Geography: Location, Technology, and Innovation*. Cheltenham, UK: Edward Elgar.

Iversen, Torben, and David Soskice. 2001. "An Asset Theory of Social Policy Preferences." *American Political Science Review* 95 (4): 875–93.

Iversen, Torben, and David Soskice. 2006. "Electoral Institutions and the Politics of Coalitions: Why Some Democracies Redistribute More Than Others." *American Political Science Review* 100 (2): 165–81.

Iversen, Torben, and David Soskice. 2019. *Democracy and Prosperity: Reinventing Capitalism through a Turbulent Century*. Princeton, NJ: Princeton University Press.

Lupu, Noam and Jonas Pontusson. 2011. "The Structure of Inequality and the Politics of Redistribution." *American Political Science Review* 105 (2): 316-336.

Manow, Philip, Bruno Palier, and Hanna Schwander, eds. 2018. *Welfare Democracies and Party Politics: Explaining Electoral Dynamics in Times of Changing Welfare Capitalism*. Oxford, UK: Oxford University Press.

Meghir, Costas, and David Phillips. 2010. "Labour Supply and Taxes." In *Dimensions of Tax Design: The Mirrlees Review*, eds. Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, *et al*. Oxford, UK: Oxford University Press, 202-74.

Meltzer, Allan H., and Scott F. Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89 (5): 914-27.

Mirrlees, James A., 1971. "An Exploration in the Theory of Optimal Income Taxation" *Review of Economic Studies* 38 (2): 175-208.

Moene, Karl Ove, and Michael Wallerstein. 2001. "Inequality, Social Insurance, and Redistribution." *American Political Science Review* 95 (4): 859–74.

Persson, Torsten, and Guido Tabellini. 2000. *Political Economics: Explaining Economic Policy*. Cambridge, MA: MIT Press.

Pierson, Paul. 1996. "The New Politics of the Welfare State." *World Politics* 48 (2): 143-79.

Piketty, Thomas. 2014. *Capital in the Twenty-First Century*. Cambridge, MA: Belknap Press of Harvard University Press.

Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman (2018). "Distributional National Accounts: Methods and Estimates for the United States." *Quarterly Journal of Economics* 133 (2): 553–609.

Rahman, K. Sabeel, and Kathleen Thelen. 2019. "The Rise of the Platform Business Model and the Transformation of Twenty-First-Century Capitalism." *Politics and Society* 47 (2): 177–204.

Rehm, Philipp. 2016. *Risk Inequality and Welfare States. Social Policy Preferences,*

 Development, and Dynamics. Cambridge, MA: Cambridge University Press.

Rodden, Jonathan A. 2019. *Why Cities Lose: The Deep Roots of the Urban-Rural Political*

 Divide. New York, NY: Basic Books.

Rodrik, Dani. 2011. *The Globalization Paradox: Democracy and the Future of the World*

 Economy. New York, N.Y.: W. W. Norton & Company.

Rosenbluth, Frances, and Ian Shapiro. 2018. *Responsible Parties: Saving Democracy from Itself*.

 New Haven, CT: Yale University Press.

Rothstein, Bo. 1998. *Just Institutions Matter: The Moral and Political Logic of the Universal*

 Welfare State. Cambridge, UK: Cambridge University Press

Rueda, David. 2007. *Social Democracy Inside Out: Partisanship and Labor Market Policy in*

 Advanced Industrialized Democracies. Oxford, UK: Oxford University Press.

Saez, Emmanuel, Joel Slemrod, and Seth H. Giertz. 2012. "The elasticity of taxable income with

 respect to marginal tax rates: A critical review." *Journal of economic literature* 50 (1): 3-50.

Saez, Emmanuel, and Gabriel Zucman. 2019. *The Triumph of Injustice: How the Rich Dodge*

 Taxes and How to Make Them Pay. New York, NY: W.W. Norton & Company.

Storper, Michael. 2013. *Keys to the City: How Economics, Institutions, Social Interaction, and Politics Shape Development*. Princeton, NJ: Princeton University Press.

Streeck, Wolfgang. 2016. *How Will Capitalism End? Essays on a Failing System*. New York, NY: Verso.

Thelen, Kathleen. 2018. "Regulating Uber: The Politics of the Platform Economy in Europe and the United States." *Perspectives on Politics* 16 (4): 938–53.

Verbist, Gerlinde, Michael Förster, and Maria Vaalavuo. 2012. "The Impact of Publicly Provided Services on the Distribution of Resources: Review of New Results and Methods." OECD Social, Employment and Migration Working Papers No. 130. Paris, France: OECD Publishing.