Globalization, Top-Heavy Inequality, and Anti-Elite Populism: What (If Any) Are the Links¹

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Presiding over the November 2016 meeting of the International Political Economy Society, which followed that year's U.S. presidential election by only three days, David Lake began by saying, "To our theories, this result unfortunately comes as no surprise." And indeed the field at large has believed that the growing "populist"² backlash against the liberal international order (hereafter: LIO) – not just the Trump victory, but Brexit, the election of illiberal regimes in Hungary, Poland, Turkey, the Philippines, and Brazil (to name only a few), and growing support for anti-immigrant and illiberal parties and candidates in many other democracies – has followed almost inevitably from the very changes that the LIO has wrought, including of course increased trade and migration but their concomitant, rising economic inequality within states. Advanced and even middle-income countries, the standard reasoning goes, are abundantly endowed with human capital, poorly endowed with low-skill labor; and it is a rudimentary implication of international economics that, in those countries, expanded trade - or, even more, immigration of low-skill workers - will benefit the highly skilled and harm the less educated. Inequality will rise, and – perhaps the most prescient conclusion of the standard analysis – partisanship will correlate increasingly with possession of human capital: opposition to the LIO will be strongest among the least educated and will decrease monotonically with more years of schooling.

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² The term is nebulous and conveys an anti-elite, rather than an anti-globalization, orientation; some parties of the Left described as "populist" do not oppose (or even embrace) the LIO. Inglehart and Norris (2016), however, reserve the term for anti-immigrant parties.

The evidence, which we survey briefly below, admits of no doubt that in almost all of the wealthier (and not a few semi-wealthy) countries: (a) inequality has risen, often quite sharply; (b) the "skills premium," i.e., higher returns to education, has risen markedly; and (c) education, even more than occupational status, has emerged as one of the most important predictors of electoral support for anti-globalization parties. What our theories however did *not* anticipate, and so far cannot explain, may well prove to have been even more important, namely

- a) not all who are well endowed in human capital, but chiefly a very thin upper layer – the top 1 percent, or even 0.1 percent – has harvested most of the gains from globalization;
- b) the anti-globalization movements we observe
 - have blossomed only over the past decade, despite globalization's having accelerated at least since the "China shock" of the early 2000s, and arguably since the fall of Communism in the early 1990s;
 - often excoriate not just globalization or immigration, but allegedly nefarious elites, who conspire across borders to enrich each other at the expense of their fellow citizens; ³ and
 - have in important cases attracted non-negligible support albeit far less than from the less-skilled – among university-educated segments of the electorate;⁴

We suggest that these anomalies are related, and that some insights from recent work in international economics, including an "enriched" neo-HOSS (Heckscher-Ohlin-Stolper-Samuelson) perspective, may help to explain them. Despite the undoubtedly valuable

³ The final television ad of Donald Trump's campaign, accompanied by suggestively anti-Semitic imagery, assailed "a global power structure responsible for the economic decisions that have robbed our working class, stripped our country of its wealth, and put that money into the pockets of a handful of large corporations and political entities." <u>https://www.youtube.com/watch?v=vST61W4bGm8</u>

⁴ E.g., of U.S. college graduates overall, 45 percent voted for Trump (vs. 49 percent for Clinton); but, among white college graduates, Trump won a narrow plurality: 49 percent Trump, 45 percent Clinton.
"Who Voted for Donald Trump?" *The Independent*, 9 November 2016.

https://www.independent.co.uk/news/world/americas/us-elections/who-voted-for-donald-trump-white-menand-women-most-responsible-for-new-president-elect-voting-data-a7407996.html, accessed 8 April 2019.

insights of "new" and "new new" trade theory, this variation on a more traditional theme provides its own crucial perspective.

None of this suggests, of course, that rising inequality is the only, or even necessarily the most important, cause of the growing popular backlash against the LIO. Immigration, de-industrialization, and regionally specific downturns also matter. We do find however, at least from European evidence, that backlash to such shocks is conditional on high inequality, disappearing or actually reversing where inequality is low; and we suspect that "top-heavy" rising inequality is related to a particularly virulent strain, within the anti-globalization movements, of anti-elite and anti-expert sentiment.

We go on to suggest why rising inequality matters, not only as a source of opposition to the LIO, but as an impediment to economic growth and an exacerbant of domestic polarization and international conflict. Finally, we consider suggested remedies or ameliorants: can they work, even if implemented; and can they realistically garner political support? Part of the answer to that final question will come from survey experiments already undertaken or currently underway.

First, however, let us survey briefly the extent of growing economic inequality within advanced and middle-income economies and its seeming relation, chiefly through a human-capital channel, to anti-globalization and anti-elite attitudes and voting.

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CONVERGENCE ACROSS COUNTRIES, DIVERGENCE WITHIN THEM

The triumph of the international liberal order in the 1980s and 1990s – the collapse of Communism, the dismantling of trade barriers, the strengthening of institutions of international governance – coupled with, and facilitated by, breakthrough innovations in transport, communication, and finance – indeed affected economic inequality in two ways that very standard factor-endowment theories predicted: inequality declined significantly *between* countries, thus beginning to erode three centuries of the "Great Divergence" between rich and poor nations; but inequality *within* countries, especially among the advanced economies, increased almost as sharply.

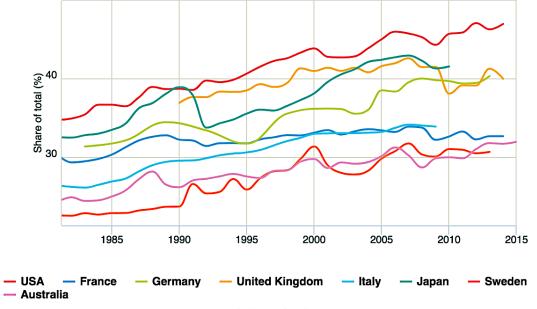
- <u>Between countries</u>: As late as 1990, the richest 10 percent of the world's population earned on average over 90 times what the poorest decile received; only twenty years later, that ratio had fallen to 65 (Bourguignon 2015, p. 42 [Table 1]), or only slightly more than the within-country ratio of Brazil, where in 2008 the average income of the richest decile was about 50 times that of the poorest (*ibid.*, p. 21).
- <u>Within countries</u>: Beginning even earlier, inequality of incomes, whether measured as the share of total income accruing to the top decile (Figure 1) or by the Gini index (Figure 2), has risen in virtually all of the advanced economies, and in many of the poorer and middle-income ones (Figure 3). Bourguignon notes that the collapse of the Soviet empire and the opening of China, India, and Latin America injected roughly "a billion workers, for the most part unskilled, into international competition" (Bourguignon 2015, p. 76). That will have drastically lowered the *global* capital-labor ratio and hence further raised returns to human and physical capital, while reducing those to low-skill labor, in all but the poorest, most labor-abundant countries.

In short, throughout much of the globe, the enormous overall gains from trade have benefited the highly skilled, the inventive entrepreneurs, and the owners of capital; the incomes of the less skilled and the capital-poor have risen more slowly,

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stagnated, or actually declined – exactly the development whose early manifestations alarmed Dani Rodrik (1997) two decades ago. Moreover, since both low-skill and highskill sectors are often geographically concentrated, whole regions within countries decline while others gentrify (Autor, Dorn, and Hanson 2013; cf. Broz, Frieden, and Weymouth, 2019): in southern Ohio or northern England, failing industries devastate local consumer and housing markets; in San Francisco or central London, rapidly expanding sectors hike rents, displace poorer and middle-class tenants (and the shops they frequent), and even exacerbate homelessness; and in China and India, urban export centers flourish while the rural hinterlands often remain mired in poverty.

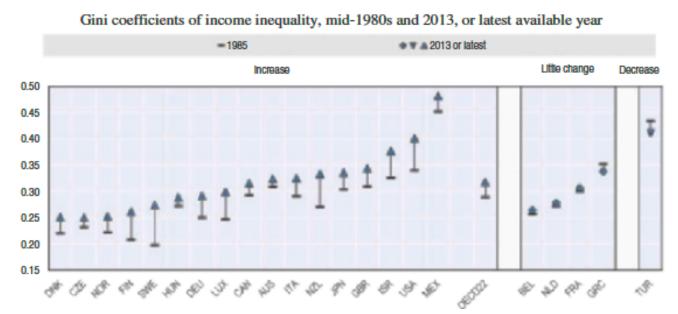
FIGURE 1 Advanced Economies



Top 10% national income share

Graph provided by www.wid.world

Figure 2⁵



OECD Countries

Surely not all of the rise in inequality stems from globalization. Many analyses attribute much of the widening within-country gap – in the U.S., perhaps as much as four-fifths (Zhu and Treffler 2005, p. 21) – not to globalization, but to *skillbiased technological innovation*.⁶ Bourguignon however contends (2015, p. 81) that innovation has been largely endogenous to globalization: wider markets and intensified competition raise the returns to cost-reducing innovation. It is also the case, as "new new" trade theory has found, that the most successful firms in the world economy tend to be the largest (Melitz 2003, p. 1696; cf. Melitz, Mayer, and Ottaviani 2014); and, since managerial pay correlates closely with firm size – i.e., precisely these largest and most globally successful firms will pay their "C-level" staff the most (Bourguignon 2015, pp. 88-89) – globalization will have contributed directly, rather than just through the channel of skill-biased innovation, to the rise in top incomes. Perhaps most importantly,

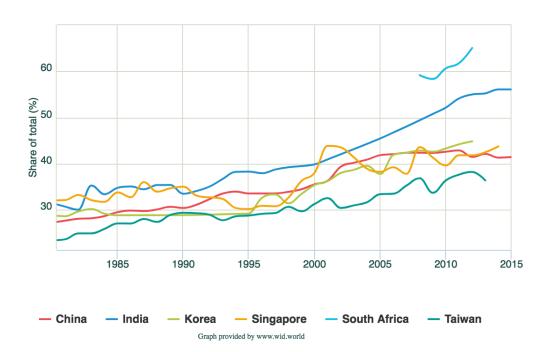
⁵ Source: OECD 2015, p. 24.

⁶ More recent work on U.S. regional labor markets (Autor, Dorn, and Hanson 2015), however, suggests that low-skill employment losses from trade matter more than those from technological innovation: workers displaced by automation tend to find other work at comparable wages, while those displaced by trade remain unemployed or accept lower wages.

however, whatever skill-biased innovation may have contributed to the gains of the top quintile or decile, it can say little about the gains of the top 1, or 0.1, percent of the distribution.⁷ What matters most, even if it is only an "alternative fact," is that the populist movements almost unanimously *blame* freer trade in products and factors for rising inequality – or, more particularly, for the stagnating incomes of the great majority and for the vast, increasing, and allegedly plundered wealth of a thin "global" elite.

FIGURE 3

LDCs and NICs



Top 10% national income share

⁷ In the "Schumpeterian" model advanced recently by Jones and Kim (2018, p. 1795), increasing returns to skill have no effect on the share going to the top 1 or 0.1 percent.

RISING SKILLS PREMIA; EDUCATION AS THE NEW POLITICAL CLEAVAGE

Also consistent with mainstream theory were the rising premium to skills and the widening gap between high- and low-skill workers' attitudes toward trade and migration. Exactly as theory would lead us to expect, anti-globalization sentiment rose sharply, and was increasingly concentrated among, voters with the least human capital – or, more precisely, among the less educated.

Returns to education have indeed risen sharply. In the U.S. in the 1970s, workers with a college degree earned only about a quarter more than ones of comparable ethnicity and age who had only completed high school; by 2010, that gap had risen to almost 50 percent (Figure 4). The raw difference in annual earnings (i.e., without controlling for ethnicity and age) between college graduates and those who have only completed high school is now 70 percent in the U.S.; and on average in the advanced economies the difference is now over 60 percent (Figure 5).

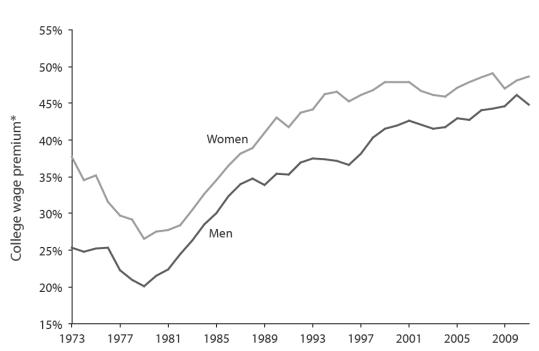


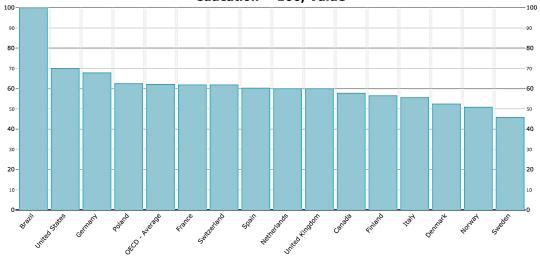
FIGURE 4 SKILLS PREMIA: USA⁸

* Percent by which wages of college graduates exceed those of otherwise equivalent high school graduates, regression adjusted

FIGURE 5

SKILLS PREMIA, MAJOR OECD COUNTRIES⁹

Tertiary education, Total, 25-64 years, All earners, Relative earnings - upper secondary education = 100, Value



⁸ Source: Mishel *et al.* 2012, p. 211.

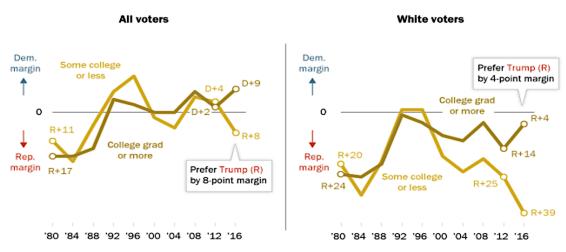
⁹ Source: OECD.stat, graph generated 14 April 2019. Latest available data.

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At the same time, less educated voters have mobilized strongly against globalization in almost all of the advanced economies. In the U.S., whites with less than a college education, having up to the year 2000 differed little in their partisanship from whites with university degrees, began to tilt Republican in the early 2000s and supported Trump overwhelmingly in 2016 (Figure 6). The same pattern characterized the Brexit referendum (Figure 7). And a recent IMF Working Paper (Boeri *et al.* 2018) finds that tertiary (i.e., university or equivalent) education has since 2002 correlated, more than any other single variable, with <u>not</u> voting for a populist party in European parliamentary elections – an effect that has grown only stronger since 2012 (*ibid.*, pp. 23-25).

FIGURE 6

EDUCATION AND PARTISANSHIP: USA¹⁰



Presidential candidate preference, by educational attainment

¹⁰ Source : Pew Research Center 2016.

FIGURE 7¹¹

EDUCATION AND THE BREXIT VOTE

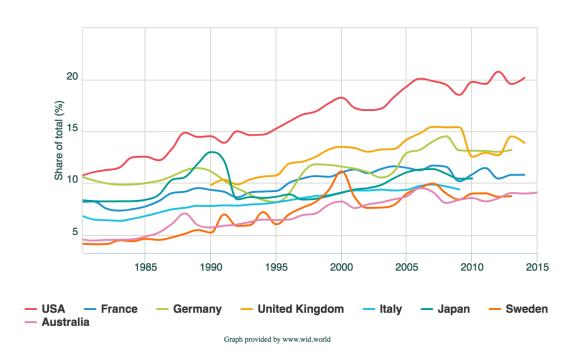
	REMAIN	LEAVE
GCSE or lower	30	70
A level	50	50
Higher below degree	48	52
Degree	68	32

THE RIDDLE OF THE 1 AND 0.1 PER CENT

In many ways, then, a standard factor-proportions picture of globalization's distributional and political effects holds up. What it cannot explain, as leading economists have by now noted repeatedly (see, e.g., Haskel *et al.* 2012; Jones and Kim 2018), is why so much of the bounty has gone to the top 1 or even 0.1 percent and why even the remainder of the top decile, let alone the highly educated generally, have benefited comparatively little. Indeed, on closer inspection much of the increased share of the top 10 percent (see again Figure 1) owes to gains by the top 1 percent (Figure 8); the remainder of the top 10 percent (i.e., those at or above the 90th and below the 99th percentile) have seen a comparatively paltry increase (Figure 9), ranging from none at all in France and the UK to a maximum of just over one-fifth (i.e., a rise from a 20 to a 24 percent share) in Germany. Meanwhile the share of the top 1 percent in total income has risen almost everywhere since the 1990s, roughly doubling in Germany, Sweden, the UK, and the U.S.

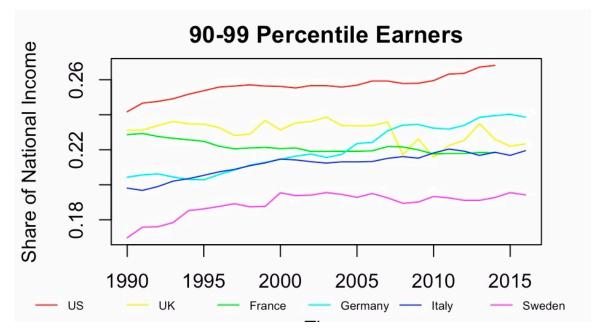
¹¹ YouGov survey, 27 June 2016: <u>https://yougov.co.uk/topics/politics/articles-reports/2016/06/27/how-britain-voted</u>. Accessed 18 August 2019. GCSE = General Certificate of Secondary Education, rough equivalent of a high school degree. A level = qualified for university admission.

FIGURE 8



Top 1% national income share

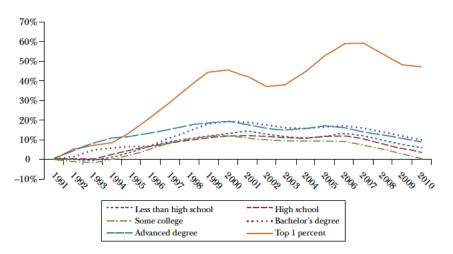
FIGURE 9



For the U.S. case, Haskel *et al.* (2012) contrast the rise of the top 1 percent explicitly with the gains of owners of human capital more generally, proxied by levels of educational attainment. Note (Figure 10) that even those with bachelor's or advanced degrees gained far less over the period they examine (1991-2011) – even during the boom that preceded the Great Recession, cumulatively less than 20 percent in inflationcorrected dollars – than the top 1 percent, whose real income peaked in those same years with a cumulative gain of almost 60 percent.

The seemingly inexorable rise of the 1 percent, when contrasted with the relative stagnation of lesser top earners, and of owners of human capital more generally, raises at least three questions: (a) Can our standard theories be modified to explain this "top-heavy" form of inequality? (b) Would such a modified theory still provide a plausible link to globalization? and (c) Does such a theory help us to understand the simultaneously anti-elitist and anti-globalization movements <u>and</u> (even more to the point) their only recent rise to prominence?

FIGURE 10¹²



Changes in U.S. Real Income, Working Adults, by Education and for Top 1 Percent

¹² Source : Haskel *et al.* 2012, p. 122.

HASKEL ET AL.'S "ENRICHED" HECKSCHER-OHLIN MODEL

Our answer to the first two of these questions is an emphatic "yes," and to the third, "probably yes." We invoke, or indeed shamelessly appropriate, the "enriched" HOSS model advanced by Haskel *et al.* in 2012. To state briefly the salient and surprising implications of that model, a drop in the relative price of labor-intensive goods, whether induced by globalization or technology, can not only, as in standard models, reduce the wages of low-skill workers, but also: (a) distribute almost all of the resultant gains to a thin layer of highly talented¹³ people; and, at least as importantly, (b) induce stagnation, or actual decline, in the earnings of skilled but less talented workers. And, once we observe that such a shift is (a) quite recent and (b) plausibly linked to globalization tinge of the populist movements, (b) why such movements have recently peaked, and (c) why they gain (and may well continue to gain) support not only from the "usual suspects" among low-skill workers, but also from those with medium or even relatively high endowments of human capital.

The "richer" HOSS model will be readily understood in its graphical form. We start with a conventional depiction of the Stolper-Samuelson Theorem (Figure 11). With only two goods, one produced using capital intensively and the other intensive in low-skill labor, the line of tangency to the respective isocost curves (i.e., the combinations of capital and labor that can produce, say, \$1000 worth of each good) sets the relative price of the two factors of production (the slope of the solid line in Figure 11). But any increase in the relative price of the capital-intensive good means that \$1000 worth of it can now be produced with less capital and labor: its isocost curve shifts inward (the dashed curve). But that also shifts the relative price of the two factors (the slope of the new, dashed line of tangency): a unit of capital now trades for more units of labor; or, in more prosaic terms, the return to capital rises and wages fall.

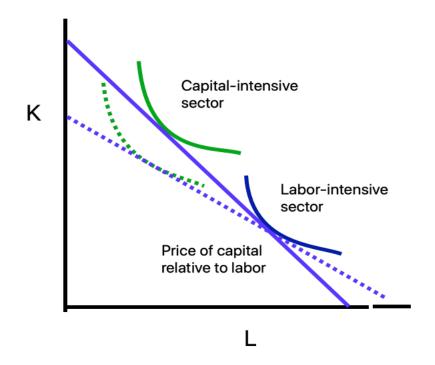
¹³ Talent, as we'll see, must be distinguished from skill. Skill, as certified by training or education, is observable (albeit inevitably with some noise); talent, at least in the set-up employed by Haskel *et al.*, is initially unobservable. We know which conductors trained at the Curtis Institute; we do not know in advance which of them will turn out to be Leonard Bernstein.

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In the augmented HOSS model, the capital-intensive sector employs three kinds of high-skill workers, defined by their endowments of (initially unobservable) talent: high, medium, or low (Figure 12). The more talented the worker, the less capital and labor she requires to produce the capital-intensive good – or, equivalently, the higher the price such a worker's capital-intensive product can command. By definition, workers are immobile upwardly across these talent categories (a low-talent worker cannot overnight become one of high talent); but a high-skill worker can, if she chooses, move into the low-skill sector. We assume, as in the standard model, that capital is perfectly mobile across sectors, hence its cost is the same everywhere.

FIGURE 11

THE STANDARD HOSS MODEL



An increase in the relative price of the capital-intensive good lowers its isocost curve and raises the relative price of capital: a change in the relative price of a good is transmitted to the price of the factor used intensively in the production of that good.

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This bifurcates the labor market: the high-talent workers, able to use capital¹⁴ more efficiently, command a higher wage. The low-skill wage is set equal to that of a high-skill worker of medium talent, while high-skill but low-talent workers would actually earn less in the capital-intensive sector than in the labor-intensive one: hence less talented high-skill workers move into the low-skill sector.

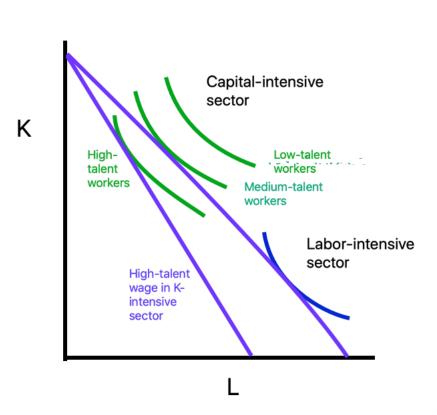


FIGURE 12 THE "ENRICHED" HOSS MODEL OF HASKEL *ET AL.*

High-skill workers may be of high, medium, or low talent. Medium-talent high-skill workers are interchangeable with low-skill ones, while low-talent high-skill workers will earn more in the low-skill than in the high-skill sector. High-talent high-skill workers use (mobile) capital more efficiently, can produce at lower cost, and earn higher wages.

¹⁴ "Capital" in this situation may be intellectual or otherwise intangible. A movie script, for example, earns a much higher return if performed by the best actors, as against merely skilled ones.

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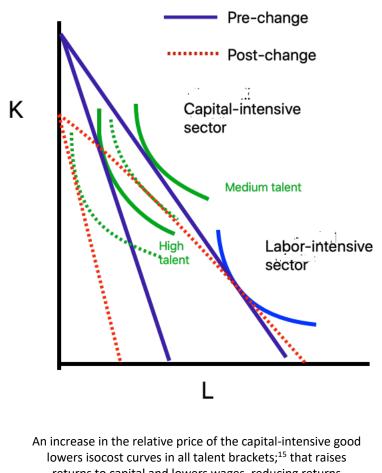
What now happens if, as before, the relative price of the capital-intensive good rises? The isocost curves move downward for all three brackets of talent (Figure 13, dashed lines; low-talent workers now omitted for clarity of presentation); and, since the relative price of capital with respect to labor is set, as before, as the slope of the tangent line to medium-talent high-skill and the low-skill workers, just as in the standard model the relative price of capital rises: the return to capital increases, wages in the low-skill sector decline. But, since workers of medium-talent are interchangeable with ones in the low-skill sector, the compensation of medium-talent high-skill workers also falls. The capital with which they work becomes relatively pricier, and the increase in the price of the high-skill product (remember, the isocost curve of the medium-talent workers has also moved inward) does not suffice to compensate for the increased cost of capital. The only gainers are the high-talent, high-skill minority, whose wages unambiguously rise.

Admittedly, this analysis assumes, rather than explains, that we can attribute the rise of the top 1 percent to differences in talent; but a lot of evidence supports the thesis. For one thing, in almost all countries – including such improbable cases as France and Spain – half to two-thirds of the income of the top 1 percent consists of salaries, i.e., compensation for work. Rarely in any present-day advanced economy, Thomas Piketty's (2014) arguments notwithstanding, do returns from capital constitute more than a quarter (in the U.S., less than 15 percent) of the incomes of the top 1 percent (OECD 2014, p. 4). As one observer (Keeley 2016) notes, "The fact that so many of [today's] top earners work for a living is striking," given that a century ago the great majority of elite incomes came from investments in property, bonds, or equities. For another, the mechanism posited decades ago by Rosen (1981), in which audience growth translates slight differences in talent into huge earnings for "superstars," would predict increasingly outsize rewards to "the best," as the market for their skills – be they in finance, entertainment, sports, management, or economics – becomes more fluid and global.

FIGURE 13

HOW EXPANDED TRADE CAN AFFECT

FACTOR PRICES IN THE AUGMENTED HOSS MODEL



returns to capital and lowers wages, reducing returns both to low-skill and to medium-talent high-skill workers. **The wages of medium-talent high-skill workers stagnate or decline.** Only the high-talent workers, who can use pricier capital more efficiently, gain.

Once we grant that such differences in talent can become important, the model

suggests that any globalization-induced rise in the relative price of capital-intensive

¹⁵ Low-talent high-skill workers, no longer depicted here to minimize clutter in the figure, continue to be better remunerated in the low-skill sector; hence their wages also decline.

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goods (or, equivalently, decline in the relative price of labor-intensive products) in advanced economies may depress (or threaten to depress) the wages not only of lowskill workers but of high-skill ones of less than superlative talent. It thus raises the prospect that the growing resistance to global markets may be embraced, sooner rather than later, not only by low-skill workers but by a growing segment of those with higher education or advanced training.

INEQUALITY AND ANTI-GLOBALIZATION: EVIDENCE FROM EUROPEAN ELECTIONS

While Brexit, Trump, Le Pen, AfD, FPÖ, Sweden Democrats, and a host of similar movements have recently captured our attention, Inglehart and Norris (2016) have provided a more systematic and long-term perspective. Classifying European parties as "Populist" (nativist, i.e., anti-immigrant and anti-globalization) and "Left" (in favor of a strong welfare state) or "Right" (free markets, low taxes), they find the Europe-wide trend depicted in Figure 14; the more recent acceleration in Right Populist voting in Europe, using a slightly different definition,¹⁶ is traced by Georgiadou, Rori, and Roumanias 2018 (Figure 15). And while support appears to be strongest among older and less educated voters, it is by no means confined to those groups: the Sweden Democrats, for example, garnered in 2018 the support of 12 percent of voters in the highest income quintile, 13 percent of university students, and 17 percent of the self-employed (as against 15 percent among all voters surveyed).¹⁷ Europe-wide, some 28 percent of respondents with a higher tertiary degree (beyond B.A.) and 22 percent with lower tertiary (B.A.) say that immigration makes their country "a worse place to live."¹⁸

¹⁶ Following the distinction pioneered by Cas Mudde (2007), they distinguish "radical right populist (RRP) parties from what they call "extreme right" movements, the latter being more overtly antidemocratic and often explicitly neo-Fascist in their orientation. For a full list of the parties that they classify as PRR, see Appendix Table A1 (taken from their Appendix Table A3).

¹⁷ Statistics Sweden 2018, as reported and translated in Wikipedia, "Sweden Democrats," accessed 2 May 2019.

¹⁸ This percentage of such respondents scores below the midpoint of 5 on an 11-point scale, where 0 anchors "worse place to live" and 10 "better place to live." In the population at large, 41 percent place themselves within the same range on that scale. European Social Survey accessed 2 May 2019; population-weighted and post-stratification sample.

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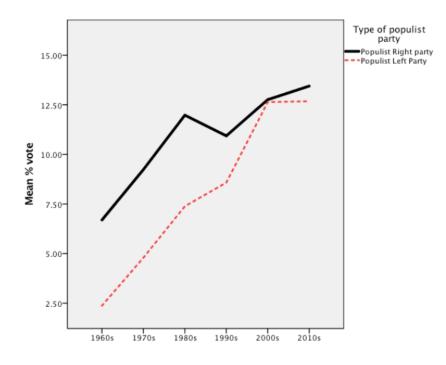


FIGURE 14 MEAN VOTE SHARE OF "POPULIST" PARTIES IN EUROPE¹⁹

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¹⁹ Source: Inglehart and Norris 2016, p. 37, Figure 4.

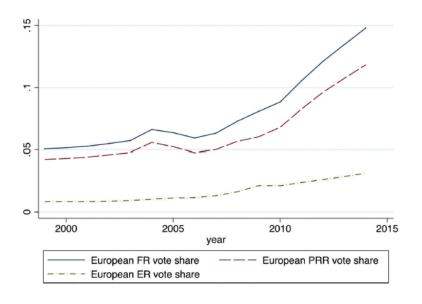


FIGURE 15 MEAN VOTE SHARE OF PRR PARTIES, 1999-2014²⁰

But is there a link between right populist voting and inequality? In a pioneering study that exploited regional-level (NUTS-2) voting data²¹ for the entire European Union between 2000 and 2014, Georgiadou, Rori, and Roumanias (2018; hereafter GRR, esp. pp. 111-112) found a substantively strong positive association, significant at p < .01, and controlling for unemployment, immigration, and economic growth, between the country-level Gini coefficient of disposable income and contemporaneous support for PRR parties.

Our own analysis, working both from the data exploited by GRR and from the finer-grained but less recent electoral data employed by Colantone and Stanig (2018b; see fuller description below), suggests that within-country inequality is better understood as conditioning European voters' responses to shocks from trade and

²⁰ Source: Georgiadou, Rori, and Roumanias 2018, p. 108, Figure 2.

²¹ The European Elections Database, housed at the *Norsk Senter for Forskningsdata* (NSD), offers data at the Eurostat NUTS-1, NUTS-2, and NUTS-3 level for European Parliament and national elections (parliamentary and presidential) from 2000 to 2014 in all member states.

<u>https://nsd.no/european_election_database/</u>, most recently accessed 15 August 2019. (NUTS is the acronym for *Nomenclature des unités territoriales statistiques*; there were in the period under consideration 266 NUTS-2 units.)

immigration. The "China shock" and rising immigration elicit anti-globalization backlash where, but only where, income is already highly unequal. In countries with more equitable income distributions, exposure of equal magnitude to immigrants and imports generates little or no support for anti-globalization movements.

Consider first trade-related dislocations. Colantone and Stanig (2018b) find a strong effect of "China shocks" on district vote shares²² for radical right parties.²³ We replicate their primary results, including their two-stage least squares, in specifications (1) and (2) of Table 1.²⁴ We augment their analysis in specifications (3)-(5) by adding as a RHS variable the top 10 percent share of post-tax national income as reported by the World Inequality Database (<u>www.wid.world</u>). While it at first appears (in specification (4)), that country-level inequality is associated even more strongly with right populist voting than is the Chinese import shock, that turns out to be an artifact of large variation in the levels of aggregation across variables.²⁵ When we employ an appropriate multilevel estimator²⁶ in specification (5), the direct effect of inequality loses significance.

²²Vote shares are for 76 national elections to the lower houses of parliament across fifteen European countries between 1988 and 2007. Official election results are sourced from the Constituency-Level Election Archive (CLEA; Kollman *et al.* 2016) and the Global Election Database (GED; Brancati 2016).

²³The authors identify radical right parties in accordance with prior literature. They provide the full list in section C of their Supplemental Information section:

<u>https://onlinelibrary.wiley.com/action/downloadSupplement?doi=10.1111%2Fajps.12358&file=ajp</u> <u>s12358-sup-0001-Online-Appendix.pdf</u>. Results are robust to alternative measures that rely on data from the Comparative Manifesto Projects to score all parties along the dimensions of nationalism and isolationism.

²⁴Our coefficients are estimated modestly more precisely and are greater in magnitude than theirs because we (a) log transform highly skewed variables and (b) standardize all the right-hand side regressors in terms of one standard deviation units to make the coefficients comparable.

²⁵ Specifically, vote shares are reported at the district level, import shocks at the level of the NUTS-2 regions, and inequality only at the country level. Estimators that fail to account for this complex nesting assign malapportioned statistical influence to units based on the number and size of regions and districts within countries. Germany, for example, has 38 NUTS-2 regions, Denmark 5, and Cyprus and Luxembourg each only 1.

²⁶ Our multilevel models estimate distinct intercepts for each NUTS-2 region and country. They also estimate random slopes for each variable at its respective unit of analysis, e.g., NUTS-2 random slopes for the NUTS-2 level China shock and country random slopes for country-level inequality.

	(1)	(2)	(3)	(4)	(5)	(6)
	b/se	$\mathbf{b/se}$	b/se	b/se	b/se	b/se
Standardized values	0.629***	0.818***	0.554^{***}	0.659***	0.212***	0.155^{***}
of log(import shock)	(0.15)	(0.15)	(0.16)	(0.16)	(0.07)	(0.06)
Standardized values	-0.094	-0.105*	-0.128**	-0.133**	-0.048	-0.026
of log(immigrant stock)	(0.06)	(0.06)	(0.06)	(0.06)	(0.10)	(0.11)
Standardized values				0.882***	0.033	-0.233
of log(inequality)				(0.15)	(0.60)	(0.63)
Standardized values						0.443***
of log(import shock) \times log(inequality)						(0.17)
Constant	-4.001***	-4.309^{***}	-3.952^{***}	-5.206^{***}	30.019	41.108
	(0.12)	(0.16)	(0.14)	(0.25)	(35.00)	(39.37)
Estimator	FE	2SLS	FE	2SLS	Multilevel	Multilevel
N	2159	2122	2076	2039	2076	2076
Adj.R-sqr	0.672	0.666	0.688	0.683		
df.resid	309		260			

Table 1: Log of radical right vote shares, district level

Note: *p<0.1; **p<0.05; ***p<0.01.

For models 1-4, SE are adjusted for auto-correlation and heteroscedasticity at nuts-2-year level. Only country-level HAC SE possible for multilevel estimators.

It turns out, however, that inequality strongly moderates the effect of the import shock. When, in specification (6), we interact inequality with the China shock, we obtain the result depicted in Figure 16. The y-axis measures the coefficient on China import shocks, while the x-axis measures the post-tax share of income, in standardized units, that accrues to the top decile in each country. Electoral districts in highly unequal countries respond to a one standard deviation increase in China shocks with approximately a 50 percent increase in the average vote share for radical right parties. By contrast, districts in countries with even slightly below-average inequality exhibit weak and insignificant responses to equally sized trade shocks – or, in the most equal countries, actually reduce their support for right populist parties, albeit with considerable empirical uncertainty.

We find much the same story with respect to the association between immigration and support for right populist parties. The reported strong positive and direct link to inequality reported by GRR (2018), this time measured by the national Gini of disposable income and on a database including all EU countries over a later period (2000-2014), similarly goes to zero when we account for heterogeneity in the number of regions within countries. More importantly, however, inequality has the same moderating effect on immigration as on trade; local surges in immigration are

associated with increases in vote shares for right populist parties only in contexts of above-average inequality. This relationship is plotted in Figure 17.

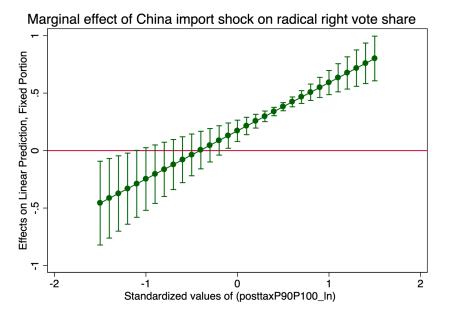
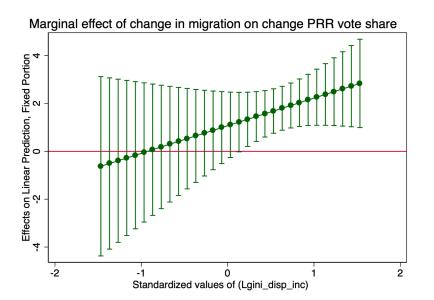


FIGURE 16

FIGURE 17



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These findings, to be sure, derive only from district-level and regional data and may not extend to the individual level (the well-known "ecological fallacy"). They also derive only from Europe, and only from the period up to 2008 (Colantone and Stanig) or 2014 (GRR); but they must be regarded as far more informative than the frequently invoked country-level comparisons. And they suggest that reducing countrylevel inequality – a topic to which we shortly turn – may cushion the political impact of globalization-induced shocks.

OTHER ROUTES BY WHICH INEQUALITY UNDERMINES THE LIO

Inequality retards economic growth. A recent IMF study suggests that an increase of an advanced economy's Gini index from the 50th to the 60th percentile, or from about 37 to 42, is associated, controlling for other factors, with a 10 percent slower annual growth rate of GDP over the ensuing decade (Ostry, Berg, and Tsangarides 2011, 18).²⁷ While the possible causal link remains unclear, an exceedingly likely suspect has emerged. Even as human capital becomes the chief driver of economic growth, skyrocketing costs of education and credit constraints on its acquisition leave underdeveloped the talents of many low earners' children (Galor and Moav 2004), at least in relation to the huge educational advantages enjoyed by the offspring of the elite (Chetty *et al.* 2017).²⁸ The recent college admissions scandal in the U.S., in which the super-rich bribed their way into elite colleges for sums that extended well into the millions of dollars, only underlines the point.²⁹

²⁷ Holding such other relevant variables as initial income and education at their median levels, the next-decade growth rate is reduced on average from 5.0 percent to 4.5 percent.

²⁸ "... children from families in the top 1% are 77 times more likely to attend an Ivy-Plus college [the eight Ivies plus Chicago, MIT, Stanford, and Duke] compared to the children from families in the bottom quintile." Chetty *et al.*, p. 1.

²⁹ The price of admission in this scheme, however, may provide a more reliable measure of the relative standing of such institutions than any of the reputational rankings: Stanford, over \$6 million; Yale, \$1.2 million; most other institutions, a few hundreds of thousands of dollars. Whether because of luck or better safeguards, we lack comparable pricing data for Harvard; but the now outdated Kushner precedent suggests that a winning bid would be well north of \$2.5 million.

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Access to higher education, however, pales into insignificance against the disadvantages faced by poorer children in and well before school: weaker vocabulary, less stimulation, fewer resources, and often more violence (e.g., Duncan and Magnuson 2011). Rising inequality seems also to exacerbate this loss of potential human capital. As Reardon (2011) has observed, "The difference in average academic skills between high and low-income students [in the U.S.] is now 30–40 percent larger than it was 30 years ago." And it can only elevate the resentment of the less educated to know, or even to intuit, that they are effectively barred from the acquisition of human capital.

Whatever the causal link, the slow growth attendant on increased inequality imposes an additional burden on the lower ranks of the income distribution, who receive a smaller slice of a barely growing pie.

Inequality and conflict; domestic and international. We have known for over a decade that rising inequality is associated with increasing polarization and conflict in domestic politics on a much broader range of topics than trade and migration (McCarty, Poole, and Rosenthal 2006). More surprising, but becoming increasingly clear, is that extreme inequality can increase conflict not only within, but among, nations. Both historically and in surveys over recent decades, higher domestic inequality has correlated with more fervent nationalism and a greater popular willingness to risk conflict with other nations, especially among the poor (see especially Caverley 2014). Solt (2011) attributed the link to "diversionary nationalism:" elites distract their domestic masses from pursuit of redistribution by invoking external threats. Shayo (2009) argued instead that, as rising inequality comes to seem irreversible, non-elites identify less with their (powerless) class, more with their (powerful) nation; while Caverley attributes the greater aggressiveness, especially among the less well-off, to the fact that the poor will bear few of the costs of "little" wars that do not involve conscription. By any of these routes, extreme inequality seems likely to augment the risk not only of trade wars, but of hostility or actual armed conflict, among states. And each possible causal path seems all the likelier to obtain the smaller the group among whom income and wealth are concentrated. Not only the

commercial aspects of the LIO, in other words, are threatened, but the peace among nations that it has helped to nurture.

POSSIBLE REMEDIES

If the ill effects of rising inequality are by now clear, and if that rise is inextricably bound up with the globalization that the liberal order has furthered, can anything halt or reverse the widening within-country gap between very rich and everybody else? Can the liberal international order be saved from the enemies that its own success has, at least in part, spawned? At least four remedies have been proposed.

Protection against imports and/or restrictions in immigration. While it is easy, and largely correct, to regard these measures as (to borrow Bebel's supposed description of nineteenth-century anti-Semitism) "the Socialism of fools," Williamson (2005, pp. 42-43) argues that the choking off of U.S. migration from the 1920s to the 1960s contributed significantly to the "great leveling" of American inequality, including the "great migration" of African-Americans out of the U.S. South, as Northern employers began to substitute black for immigrant labor. In theory, restricting an advanced economy's labor supply, by limiting the import either of labor or of labor-intensive goods, must raise low-skill wages and (as Williamson argues also happened) diminish the skills premium. That comes, of course, at the cost of forgone specialization and slower (or even negative) economic growth. The far more sensible approach, as Stolper and Samuelson (1941) had argued, would be to remain open to trade and immigration but to redistribute the resultant welfare gains in a Pareto-improving way. So why does redistribution not happen? We address this question below.

<u>More investment in education</u>. Exactly as Goldin and Katz (2008) saw the problem of rising inequality as "A Race Between Education and Technology," which in their view education was clearly losing, perhaps now education simply needs to catch up to the pressures of globalization; and the growing skill premium may incentivize people to acquire more human capital. Even ignoring the political obstacles to increased funding of education and the fact that such a solution would take at least a decade to

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erode the skills premium, the neo-HOSS perspective reveals that wider and better training would not address the central problem: the outsized gains of the highly talented "superstars."

<u>Global redistribution</u>. Thomas Piketty (2014, esp. chap. 15) considers, but rejects as "utopian," a global taxation of capital. Within-country redistribution of wealth, he argues, will fail, since capital will simply flee high-tax jurisdictions. Some see the proposed world "Tobin tax" on cross-border financial transactions as a non-utopian first step in this direction; but admittedly, even that step, and surely any beyond it, would raise the substantial issues of global governance that Rodrik's "globalization trilemma" (2000 and subsequently) has also highlighted: who would enact such a tax, and to whom would the revenues flow?

<u>National redistribution</u>. Piketty's erstwhile co-author, the late Anthony Atkinson (2015, esp. chap. 10), saw far more room, and a broader variety of techniques, for individual states to combat inequality of income and capital.³⁰ But, as we explore more fully below, political support for redistribution is often weak.

One objection is that redistribution will inhibit growth; but the same IMF study that diagnosed the growth-inhibiting effects of inequality found that redistribution did not impede, indeed more likely advanced, economic growth (Ostry, Berg, and Tsangarides 2014). It does not appear that today's ultra-rich bear much resemblance to the ever-investing and growth-stimulating "bees" of Keynes's (1920, p. 19) idealized, highly unequal *fin de siècle* Europe.

Moreover, as our analysis of European data suggested earlier, reducing inequality seems likely to mute or reverse support for right populist parties; and, by extension, to reduce political polarization.³¹ The puzzle is, then, political: why has rising

³⁰ Most attention has probably been devoted to his proposal (adapted from one by Ackerman and Alstott) to make all citizens capitalists by means of a "a capital endowment (minimum inheritance) paid to all at adulthood" (Atkinson 2015, p. 170). Interestingly, variants both of this and of a wealth tax have been proposed by current presidential candidates in the U.S.

³¹ Relatedly, Margalit (2011) found that even the modest levels of compensation offered by the U.S. Trade Adjustment and Assistance (TAA) program appeared to moderate anti-incumbent reaction to trade-related job loss.

inequality not provoked greater demand for redistribution,³² as for example the standard Meltzer-Richard model would imply?

WHY POLITICAL SUPPORT FOR REDISTRIBUTION REMAINS WEAK

If the median voter in a democratic system wants redistribution, she will likely get it. Hence we must assume that, at least currently, voters do not want it, or at least not badly enough. But why? One obvious possibility is simply ignorance: most voters are unaware of the actual extent of economic inequality.³³ That seems at odds with the growing rage against the supposedly evil "globalizing elites;" but in fact many voters considerably underestimate the extent of inequality (Gimpelson and Treisman 2018), place themselves higher in the income distribution than they in fact stand, or (especially in the U.S.) overestimate intergenerational social mobility (Alesina, Stantcheva, and Teso 2018). Here the most promising avenue of inquiry involves survey experiments, in which a pool of nationally representative respondents is randomly assigned to: (a) a control group that is asked at the outset about their support for more progressive taxation or greater redistribution; or (b) a "treatment" group that is preliminarily informed about (i) their country's actual degree and trend of inequality, (ii) the true extent of intergenerational mobility, or (iii) their own relative standing in the domestic distribution. An impressive amount of work along these lines has been done recently (see, inter alia, Kuziemko et al. 2015; Ballard-Rosa, Martin, and Scheve 2017; Hoy and Mager 2018; Alesina, Stantcheva, and Teso 2018). Together with Ken Scheve, Cameron Ballard-Rosa, and Nicolaj Thor, one of us (Rogowski) has recently concluded survey experiments in Austria and Germany, focusing on two kinds of treatments: information about overall inequality (e.g., 99-50 and 99-10 ratios); or about where the

³² Colantone and Stanig (2018b, pp. 937-938) contend, by way of contrast, that globalization has sharply limited the ability of governments to redistribute, even as effective demand has risen.
³³ Son Hing *et al.* 2019 embrace this explanation and seek possible explanations for the misperception.

respondent herself stands in the income distribution (percentile).³⁴ Our dependent variable has been preferences for (or elasticities of demand among³⁵) income tax rates of varying progressivity.

So far, it must be admitted, these experiments (including our own) have mostly come up dry. In only a few cases, usually involving subjects who learned that they stood relatively low in the income distribution, did learning more about actual inequality elicit any significant movement toward supporting higher marginal rates on high incomes (or, for that matter, lower marginal rates on low incomes). While finergrained analyses (examining, e.g., whether the treatment affected the less educated, or the less well informed, more) may show more, or subsequent work may demonstrate that respondents simply do not grasp (or do not believe) the information provided, it appears that lack of information is not the main reason that support for redistribution remains tepid. Nor, in our results, is the obstacle an (incorrect) belief that redistribution would retard economic growth: information also seems not to affect significantly the preferences even of subjects who endorse explicitly the view that higher taxes on the rich would not retard economic growth.

Other plausible reasons for the non-finding also turn out to be dubious. U.S. respondents may have simply not trusted the government (Kuzmienko *et al.* 2015); but, among our German and Austrian subjects, the treatment had no discernible effect even among those who expressed high trust in government to "do the right thing." Perhaps respondents did not regard inequality, no matter how extreme, as a serious problem; but there was also no effect if we confined it to those who explicitly did see it as a serious issue.

³⁴ A few of the experiments, including our own, also inform subjects in rough terms about the revenue consequences of the various tax rates: would they provide significantly more, significantly less, or about the same revenue as the current rates.

³⁵ Elasticities are elicited, e.g., in Ballard-Rosa, Martin, and Scheve 2017, by means of conjoint analysis: respondents are presented with pairs of overall tax schemes (a specific rate for each current bracket) and asked in case to choose between Option A and Option B, often with some indication of relative enthusiasm for each (or neither). We replicate this technique in our current experiments.

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All of this brings us back to the pessimistic conclusion that, while inequality, particularly the top-heavy kind of inequality that we increasingly observe, helps to erode support for the international liberal order and undermines that order in other ways, there is so far little political support for virtually any of the plausible remedies. Inequality will, in all probability, continue to grow, and the LIO will face increasing opposition – for many reasons, but not least for this one.

CONCLUSION

The openness to trade in goods, services, and factors of production that the LIO has so effectively advanced over decades has reduced the inequality among nations but increased economic inequality within them. While the rise in domestic inequality doubtless has other causes, chief among them skill-biased technological innovation, trade openness has contributed mightily to it, particularly since the "China shock" of 2001; and certainly those "populist" political movements that reject the LIO, whether from the Right or the Left, cast openness to trade and migration as the chief villain.

Both trade and technology, according to conventional accounts, have benefited high-skill workers and harmed those with less training and education. Indeed, skill premia – chiefly, returns to higher education – have risen sharply throughout the developed world; but the returns to skill generally are dwarfed by those that have accrued to the very top of the income distribution, the highest 1 or 0.1 percent of earners. For that, we need an explanation that goes beyond our conventional models of trade or technology; and it is not clear that, for all its undoubted merits, "new new" trade theory implies such drastic distributional consequences. One highly plausible explanation arises from the "enriched" Heckscher-Ohlin model of Haskel *et al.* (2012), in which only a thin layer of extraordinarily talented individuals within the larger set of high-skill workers unambiguously benefits from a rise in the relative price of a skillintensive product; the wages of both the less talented high-skill and the low-skill workers stagnate or fall.

The fact that the huge gains from trade and technology have flowed to such a small elite, while earnings in other categories have risen comparatively little, may go far to explain why the "populist" anti-globalization movements blame not only crucial elements of the LIO, but increasingly a small and nefarious global elite, for what Donald Trump luridly portrayed as the "carnage" among many regions and sectors of the advanced economies. Much harder to explain is these movements' tendency to seek relief in restrictions on trade and migration, rather than in redistribution or training.

The ill effects of rising inequality, however, extend well beyond the rising tide of anti-globalization movements and politicians. They extend to slower economic growth – bound to exacerbate the existing resentments – increasing political polarization on a variety of issues, and even an increased risk of international conflict.

While eminent scholars have advanced quite plausible and growthenhancing remedies for rising inequality, none elicits, nor seems likely to elicit, sufficient political support. Neither, so far, does a variety of survey experiments suggest that the anemic political support results merely from ignorance: even when informed about the extent or recent exacerbation of inequality, average voters do not increase their support for redistribution or more progressive taxation.

Hence our likeliest future is a pessimistic one: inequality will continue to grow, and with it (if also from other causes) rejection and erosion of the LIO. We can look forward to more polarization, slower economic growth, and increasing international conflict.

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APPENDIX

Table A1 EU Parties Classified by GRR as Populist Radical Right vs. Extreme Right

Country	Party	Classif	Classification		
		PRR	ER		
Austria	FPO				
	BZO	\checkmark			
Belgium	VB	\checkmark			
-	END	イイイイ			
	N-VA	\checkmark			
Bulgaria	ATTAKA	\checkmark			
Croatia	HSP	\checkmark			
Cyprus	ELAM		\checkmark		
Czech Rep.	DSSS		\checkmark		
_	RMS	\checkmark			
Denmark	DF	\checkmark			
Estonia	EIP	イイイ			
Finland	PERUS	\checkmark			
France	FN	\checkmark			
Germany	NPD		V		
,	DVU		\checkmark		
	REP	\checkmark			
Greece	LAOS	\checkmark			
	GD		V		
	ANEL	\checkmark			
Hungary	JOBBIK		\checkmark		
Ireland					
Italy	LN	\checkmark			
,	F-T		\checkmark		
Latvia	VL		$\sqrt{1}$		
	NA	\checkmark			
Lithuania					
Luxembourg					
Netherlands	PVV	V			
	LPF	V			
Norway	FRP	イイイ			
Poland	LPR	Ń			
	SRP	Ń			
	KNP	Ń			
Portugal	PNR	Ń			
Romania	PRM	,	V		
	PNG-CD		Ń		
Slovakia	SNS		マイ		
Slovania	SNS	1	•		
Sweden	SD	N N N			
Switzerland	SVP	J			
UK	NBP	v	$\sqrt[n]{\sqrt{2}}$		
	INDE		V		