

Nicolas,

I think this is a potentially interesting idea. There are a few things that need to be resolved before you can be confident that you are really observing compensation (of lack thereof) to globalization losers. The first, of course, is that the data you are using are aggregated and you can't really identify who the recipients of the transfers were. One possibility would be to compare income distribution pre- and post-tax. This would give you a view of what governments have done in terms of intervention in the income distribution. This is hard mostly due to data availability, although less so probably for the rich countries. In this case, adequate compensation would be no change in the relative position of pre- and post-tax distribution, as opposed to non-compensated losses or gains (i.e., if the rich's post fisc income improved w.r.t their pre-fisc income. I would say this is better than the comparison between GDP social spending and income distribution. But again, data would be a challenge. In addition to pre and post fisc, you would want to be sure you have general government expenditure, as opposed to central government expenditure. The latter, easier to get than the former, distort cases like US and Germany, where subnational spending is important.

As you will see in my comments in the text, you need to justify the reasoning behind your logic concluding who are the ones who need to be compensated. This is important since the whole thing rests on that.

Finally, this exercise gives a picture of what happened in these countries over 30 years. But how would you use it to address what I think is your question, namely, the behavior of political parties?

# Measuring Globalization and Compensation

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Thus far, in being interested in how political elites have compensated the losers of globalization, I have measured the rhetoric that political parties have used about globalization to proxy for their willingness to compensate those who have lost. However, there are still three fundamental questions that this approach has left ambiguously answered. Who exactly are the “losers” of globalization? How have they actually been compensated, if at all? And who is responsible for providing (or more interestingly, not providing) this compensation? Below I detail my recent efforts to better answer these questions.

Firstly, who are the losers of globalization? In a book on global income inequality, Branko Milanović states that “... the great winners have been the Asian poor and middle classes; the great losers, the lower middle classes of the rich world” (2016, p. 20). That is, when considering relative changes in real income from 1988 to 2008, citizens from North America, Western Europe, and some Asian countries- who were already at the bottom half of their national income distributions- saw the least percentage change in their incomes. In other words, the “losers” of globalization appear to be those who have gained the least in relative income, or are the “least-gainers” from globalization.

This depiction of who has lost from globalization stems from a now-popular graph called the “elephant curve,” which shows how the global income distribution has changed over this period (see figure 1). The figure reveals that people in the bottom two-thirds of the global income distribution (the elephant’s body and head) have seen large relative increases in their income, along with those at the very top of the global distribution (the elephant’s trunk). Meanwhile, those in the upper third of the distribution (excluding the very-rich “trunk”) have seen the smallest relative growth in their income. The extent to which the global very-rich have absorbed global income growth (i.e., how high the trunk is raised) is reduced, though, if one analyses the period after the global financial crisis in 2008 (see Milanović

2020). However, it remains clear that the least-gainers are those in the upper third of the global income distribution, which apparently corresponds with the lower and middle classes of the rich world.

Secondly, having potentially identified the losers from globalization (i.e., the global least-gainers in terms of relative income growth), how may they be compensated? Theoretically, there are several mechanisms to provide compensation. According to Dani Rodrik, these include policy-specific measures to reduce potential consequences (e.g., assistance for a vulnerable set of actors that is attached to a trade deal, also known as TAA's), direct compensation (i.e., tax and transfer redistribution from winners to losers), and more general compensation via the welfare state (Rodrik 2018). However, Rodrik claims that policy-specific measures are rare and usually insignificant while direct compensation is politically and economically difficult (Rodrik 2018). Therefore, measuring changes in the welfare state may capture any efforts to compensate the least-gainers, who are the lower and middle classes of rich countries and probably beneficiaries of the welfare state.

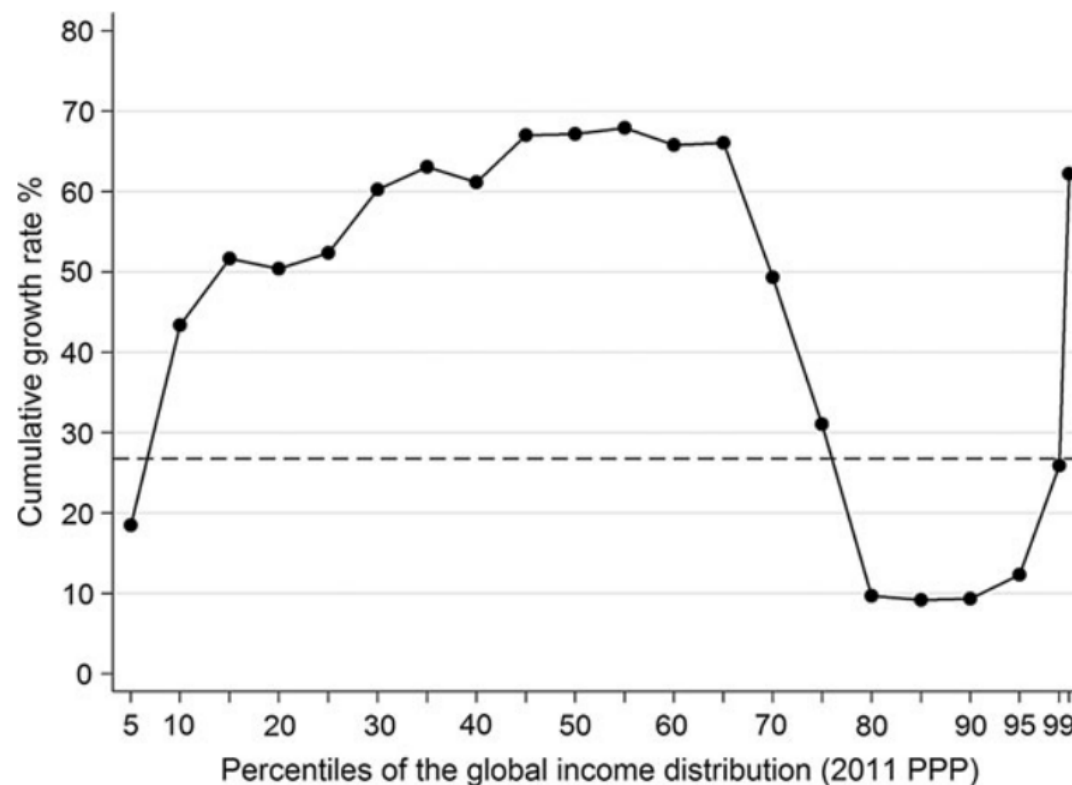
Thus, to truly measure if compensation has occurred for the losers of globalization and to what extent, social spending must be evaluated. But how much social spending is required to compensate the least-gainers? In other words, how would it be evident to a researcher that compensation has been paid? If the least-gainers are truly the collective, bottom half of the income distributions in rich countries, then their collective income can be measured in relation to the total income for a country using a Lorenz curve. Two such curves are displayed in figure 2. In the top curve, representing the year 1980, both the United States and Germany's bottom earners (say around 50 percent of the population, shown on the x-axis) earned a little over 20 percent of the total income in the country (as shown on the y-axis). In 2016, however, both countries' bottom earners only earned around 15 percent of the total income. I propose that it is this difference that must be compensated to the least-gainers, or the amount of income the bottom half would have earned had it continued to earn above 20 percent of the total income in all the years since 1980, when globalization is said to have been most rapid

(its rapidity ended by the 2008 financial crisis).

In [figure 3](#), I have plotted the share of market income (before taxes and redistribution) earned by the bottom earners (the lower 50 percent of the population) and the amount of public social spending (as a percentage of gross domestic product) for about a dozen rich nations from 1980 to 2020 (per missing data). The idea being that if the share of market income earned by the lower half of the population declines, there should be an equal or greater rise in public social spending if full compensation is to be paid. Percentages of total income are not identical to percentages of GDP, especially for household income, but in theory they should be similar (since GDP is, theoretically, national income without the income people have earned from abroad). Notwithstanding, the patterns shown are interesting. In many cases for which there is data, growth in public social spending (the thin black line with a red slope line) seems to have outpaced a decline in income (the thick, dotted black line with a blue slope line) earned by the lower to middle classes of rich countries.

While this exercise is not quite a determination of if the cumulative losses in relative income growth have been equally matched with public social spending, it does paint a picture of varying degrees of compensation occurring, with some seeming to be paid in full. What is still not clear, though, is who specifically should be responsible for this spending. Understanding the actors behind compensation seems critical for understanding why or why not they have chosen to engage in adequate compensation.

FIGURE A.1. Global Growth Incidence Curve 1988–2008 (2011 PPP)



*Notes:* Y-axis displays the growth rate in average income of the fractile group (in 2011 PPP USD). Population-weighted. Growth incidence evaluated at ventile groups (e.g., bottom 5%); top ventile is split into top 1% and 4% between P95 and P99. The horizontal line shows the growth rate in the mean of 26.74% (1.19% p.a.).

*Source:* Authors' analysis based on data described in the text.

Figure 1: Lakner and Milanovic 2015

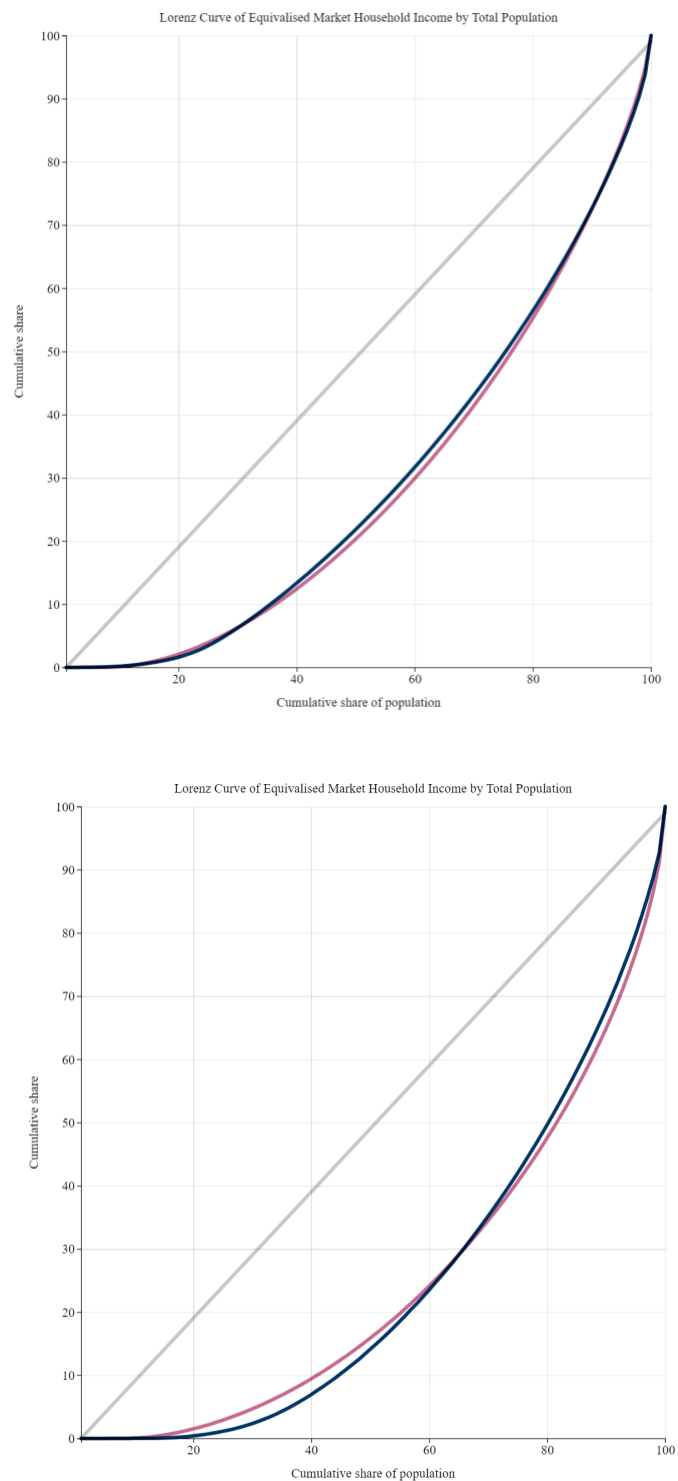


Figure 2: Lorenz curves of the United States (pink) and Germany (navy) in 1980 (top) and 2016 (bottom). From the Luxembourg Income Study ([2023](#)).

### Public Social Spending (% of GDP) versus the Income Share (% of Total Income) of the Bottom Half of the Population

Thin Black Line (with Red Slope) is Social Spending, While Thick Dotted Line (with Blue Slope) is Income Share

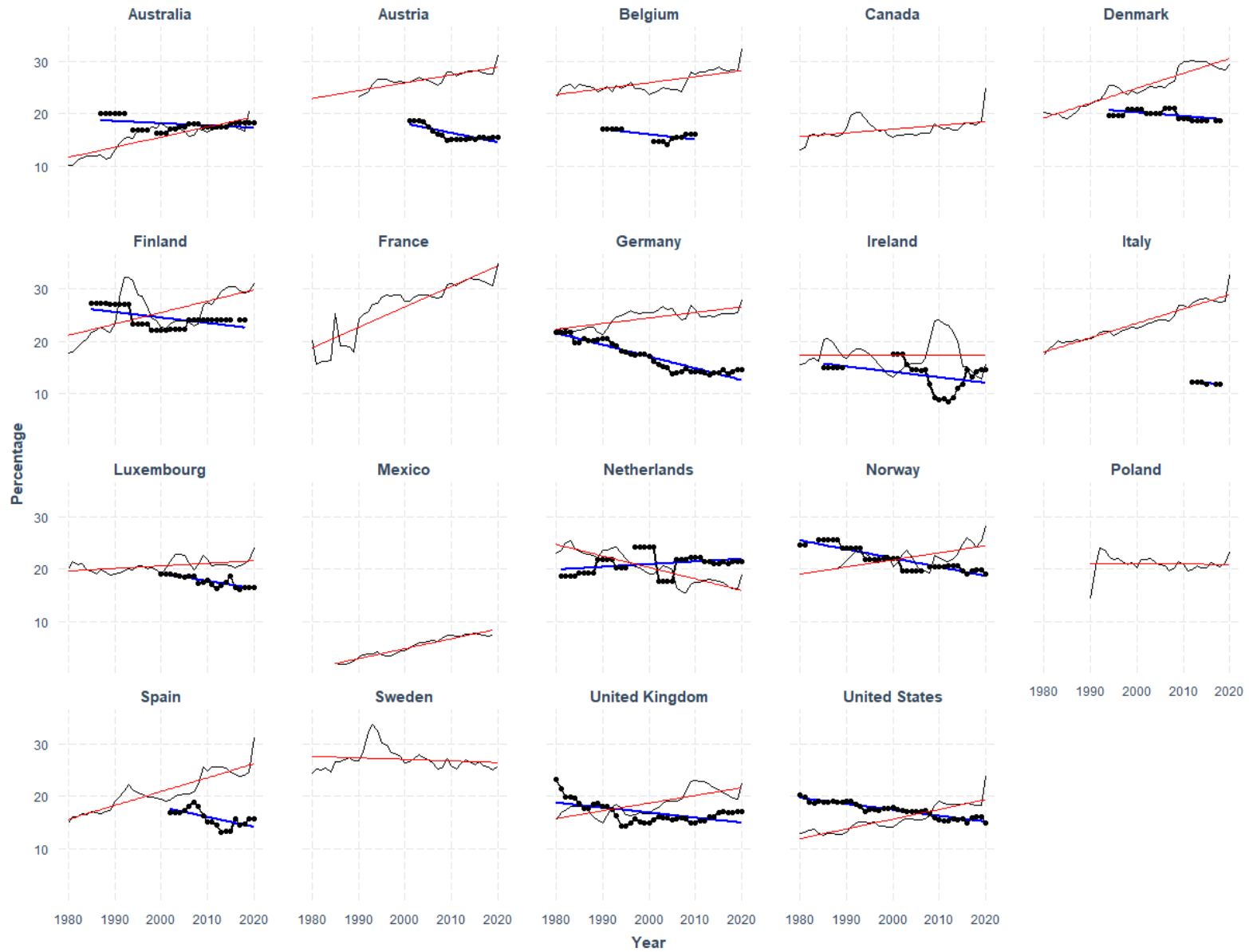


Figure 3: Social Spending and Income Shares

## References

- Luxembourg Income Study (2023). *LIS Cross-National Data Center in Luxembourg*. URL: <https://dart.lisdatacenter.org/>.
- Milanović, Branko (2016). *Global Inequality: A New Approach for the Age of Globalization*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. 299 pp.
- (2020). *Elephant Who Lost Its Trunk: Continued Growth in Asia, but the Slowdown in Top 1% Growth after the Financial Crisis*. CEPR. URL: <https://cepr.org/voxeu/columns/elephant-who-lost-its-trunk-continued-growth-asia-slowdown-top-1-growth-after>.
- Rodrik, Dani (2018). “Populism and the Economics of Globalization”. *Journal of International Business Policy* 1 (1-2), pp. 12–33. DOI: [10.1057/s42214-018-0001-4](https://doi.org/10.1057/s42214-018-0001-4).