

Referee Report on „Technological change, inequality and the collapse of the liberal order“

Summary

The paper argues that technological change has led to an unequal distribution of wealth, and that inequalities will further increase with technological progress. The authors lay out their understanding of the economic mechanisms that translate technological change into inequality, with a focus on skill bias. Eventually, they discuss policy measures to address the social conflict that emerges from technology-driven inequalities.

General Assessment

The paper addresses an extraordinarily relevant question, i.e. how social inequalities relate to technological progress, and discusses appropriate policy responses. The line of argument is consistent, and the authors come up with some concrete suggestions how to tackle increasing inequalities. Indeed, the authors derive comparatively stark conclusions, which I find reasonable in the given context of a policy paper. Overall, the authors are very transparent on their own normative stances and do a good job in distinguishing between facts, interpretation, and opinion. While I find the paper compelling in general, there are still a few points that need clarification or some elaboration. Mostly, it would be sufficient to just provide some more details to underpin the authors' arguments. But when it comes to very controversial issues, I think the authors could do slightly more to take alternative views into account, or to point out their underlying assumptions more explicitly.

Major Remarks

- The authors argue that inequality breaches the social contract, and that social contracts must be re-adjusted. It would greatly facilitate the understanding if the authors could a) explain their conception of what social contracts in Western societies comprise, and b) clarify their conception of what should be part of the re-adjusted social contract. This would back-up normative statements like those on page 8 where the authors define the role of the state.
- When discussing income inequality, it is not always clear whether the authors take capital income into account or refer to wage income only. Apparently, many wage workers also own financial assets and thus benefit from increasing capital productivity. Focusing on salaries only might be misleading in this respect.
- The link between differential earnings paths and unemployment discussed on page 2, paragraph 2, has not become clear to me.
- It is not perfectly clear to me how the technology-skill-inequality channel is supposed to work. The authors state that education and technology were in a race, policymakers invested into education, and skill levels increased. This explains the diminishing returns to education on average, and probably also the skewness in returns to formal education. However, this alone does not explain the shrinking middle class: When medium-skilled jobs get replaced, and at the same individuals become better educated, why don't they move up the ladder but drop out of the middle class? And: Is there a direct link to technological change, or does tech-change just fuel the dynamics by substituting routine tasks?
- On page 4, the authors argue that also high-skilled individuals will eventually be substituted by new technologies. Wouldn't this, in turn, imply that technological change would not further increase inequality anymore?

- The authors describe a new type of low-paying jobs as being “precarious”. As to my understanding, the counterfactual outcome for those who lose their middle-class-jobs would be unemployment. First, I wonder which share of the workforce that lost their jobs to automatization became unemployed, and which share took precarious occupations. Particularly, I could well imagine that there are significant differences between economies. Second, I wonder whether individuals in precarious occupations or unemployed individuals are eventually better off.
- To me, the distinction between middle class and precariat has not become perfectly clear, specifically when it comes to “political ramifications”. When I got it right, middle-class individuals descend to the precariat when they lose their jobs to automatization. But is it really this precariat that changes its voting behavior? The authors state that unemployment levels do not explain much in this respect, but the regional share of routine level occupations does. For me, this rather sounds as if the middle class (but not the precariat) would adjust its voting behavior, perhaps because people fear social decline.
- The link between exposure to technological change, distrust in the democratic system, and radicalization seems to be rather assumed than proven. Here, I would either like to see some more suggestive evidence for a link (which type of voters supported Brexit, which socio-economic characteristics correlate with distrust in political elites, is the decrease of support for democracy over time somehow aligned with tech-change, etc.), or a short discussion of alternative explanations, or a more cautious interpretation of the figures / a clear statement that the authors just suppose a causal link here.
- Doesn’t “continuous experimentation” with taxation and redistribution create incentive problems? Why should national governments engage in such an endeavor instead of free-riding on other countries’ experiences? Particularly, since experimenting with redistribution bears quite some risk of creating social unrest. The authors refer to an “internationally coordinated process”, but it would be interesting to read just a little bit more about how this coordination could be organized and how governments could be incentivized to participate.
- If employers cannot source appropriate skills on the labor markets, why is it the government that must invest into new skills? Wouldn’t this be a case for on-the-job training?
- How could higher education institutions become better at matching their graduate pool to the job market? Could the authors give some examples?
- Why should it be the universities that become a hub for lifelong learning? If the problem is the “precariat”, how likely is it that this target group attends university online courses?
- The authors state that “two options” emerge to more intensively tax capital, and then introduce Shiller as third option. I was a little bit puzzled whether the authors regard all three options to be equivalents, or if they see Shiller’s proposal as substitute or as contradiction to the first two options. More generally, it would be helpful if the authors could clarify how the options relate to each other (they are not mutually exclusive), and what their own preferred option is. In this context, possible distortions should be highlighted as well.
- How do the proposed tax measures and the re-distributional measures relate to each other? With an inequality-reducing tax system in place, would we still need to expand the redistributive measures?
- If relatively higher (and increasing) capital productivity is driving inequality, is subsidizing job search reasonable at all? Couldn’t it help to subsidize capital acquisition instead?
- I do not understand the argument that productivity and hourly wages have become decoupled. Doesn’t wage polarization imply that also hourly wages have been diverging?

Doesn't this relate to differences in labor productivity? How does this again relate to shareholder value?

- When the authors write about companies' social mission, I do not really get whether this relates to firms' employees, their customers, or their owners. First, I got the impression that it was about finding new remuneration schemes which are less oriented towards compensating labor productivity. But then, it rather seemed to be about using more labor instead of capital (which does not necessarily lead to less inequality). Eventually, the authors refer to consumers buying from "fair" companies, which should, as to my understanding, increase shareholder value. It would be helpful if the authors could more explicitly explain how these things relate to each other.

Minor Remarks

- Page 2, paragraph 1, last sentence: "For 90% of the population in the United States, income has grown..." is redundant.
- On page 4, section "Political Ramification", first paragraph starting with "Sustained majorities in the US...": Something has gone lost here, thus difficult to understand.
- On page 5, last paragraph before section "Proposals": A reference seems to be missing.
- On page 5, last paragraph: Sth.'s gone lost in the sentence "The overarching approach should be one of continuous experimentation. May [sic!] look appealing in the short term but may bring substantial risks..."
- I found it very difficult to understand this sentence on page 5: "We believe that what is needed is a substantial effort to change the course of the tendencies of material decline of a large group of the population, the middle classes, through renewed efforts to provide them with opportunities to pre-empt or remedy dislocation."