

***Stylized Facts on the Interaction between Income Distribution and the Great Recession***

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Karl Aiginger and Alois Guger (2013) study the relationship between income inequality and output declines during the recent financial crisis. Using data on 37 mainly industrialized countries, they examine whether a higher degree of inequality - as measured by a higher Gini coefficient or a lower wage share – has led countries to suffer higher output losses during the Great Recession.

The topic of this paper is interesting and timely. In recent years, several alternative theories have been suggested that point out negative effects of income inequality on economic performance (see Section 2 of the paper). Some of these theories emphasize direct effects originating, for example, from reductions in aggregate domestic consumption when income is mostly concentrated with a few rich individuals who have a high propensity to save. Other theories emphasize indirect channels, operating, for example, through policy responses to rising inequality (Rajan, 2010). It is now important to take these theories to the data and check whether they have empirical support. Together with some earlier work (e.g. Atkinson et al., 2011) the present paper can be considered a first step in this direction.

Aiginger and Guger (2013) do not present a fully-fledged econometric analysis. Rather they employ relatively simple econometric techniques to inspect potential effects of the income distribution on economic performance. Using Principle Components methods they construct indicator variables for (i) output performance, (ii) the “level” of the income distribution, and (iii) the recent “change” in the income distribution<sup>1</sup> and inter-relate these three variables in a simple OLS framework. To the authors’ disappointment, no statistically significant correlation between the output performance indicator and the level (or change) of the income distribution indicator is revealed by their analysis. However, when decomposing the income distribution indicators, they do find two significant correlations, indicating that output performance was better in countries where (i) the Gini coefficient declined and (ii) the long run wage share decreased prior to the crisis.

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<sup>1</sup> See Section 3 of the paper for details.

Given the simple modeling framework, the authors “negative” results are not overly surprising. The income distribution is at best *one* factor among many explaining output performance during the crisis. To isolate the effects of the income distribution, it appears important to carefully control for these other factors. In my view, the data presented by the authors further strengthen this view. For example, Table 1 illustrates large differences between countries in terms of output performance during the crisis (for example, a GDP *increase* of more than 30% in China between 2007 and 2010, and a GDP *drop* of 20% in Latvia over the same time period) while, at the same time, Table 3 suggests that these countries are relatively similar in terms of their income distribution characteristics. The output performance differences between these countries therefore appear to be mostly driven by other factors which are not accounted for in the analysis. As emphasized above, without carefully controlling for all other important explanatory variables in the estimation equation, it may be that one cannot find any (additional) effect of the income distribution even if it exists.<sup>2</sup> As a consequence, it is not obvious to what extent the authors’ findings are rooted in their methodology or in the data.

These considerations make clear that – if possible at all – a more advanced econometric analysis maybe necessary to address the research question at hand. However, such an analysis is far from being simple as many difficulties arise. A first key issue is data availability. The authors emphasize (p. 19) “that (...) data on income distribution are (...) less than perfect“: many variables are available only for focal years and it is not clear to what extent income data are comparable across countries. The authors stress (see p. 20) that, as a consequence, Panel econometric methods cannot be applied and the issue of causality is impossible to address. These are important obstacles that limit the conclusions we can draw from the present analysis. At the same time, however, these obstacles highlight interesting directions for future research such as collecting additional data, improving data comparability, etc. Such data quality improvement seems of major importance to address the authors’ (clearly relevant) research question in a reliable way.

Finally, the authors’ finding that changes in the income distribution (rather than income inequality *per se*) have negative effects on output performance is remarkable; the theories discussed in the present paper do not seem to deliver a satisfactory explanation. If this

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<sup>2</sup> Aiginger and Guger (2013) do briefly address this problem in Section 5. They add explanatory variables, one at a time, to their estimation equation (e.g., current account, credit growth) and illustrate that this does not change their main conclusions. However, this procedure is not very systematic and most likely does not include all important explanatory variables.

empirical result is robust and not driven by an omitted variable bias, it suggests that adjustment processes in the years prior to the crisis may have played an important role during the crisis. These adjustment processes may be an interesting line of future research in macroeconomic theory.

To conclude, the work by Karl Aiginger and Alois Guger presents interesting food for thought both for academics and policy makers. While the conclusions that can be drawn from the present analysis may be limited due to methodological issues, several interesting aspects of the recent financial crisis are examined and important directions for future research are suggested.

## **References**

Atkinson, A.B., Piketty, T., Saez, E. (2011). *Top Incomes in the Long Run of History*. *Journal of Economic Literature* 49(1), pp. 3-71.

Rajan, R. (2010). *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton University Press, Princeton.