

## Review of the Manuscript 3218-1 “Job duration and inequality”

The paper presents a set of agent-based computational experiments aimed to study the relationship between labor contract duration and inequality both in wealth and income.

The agent-based model is stylized and relatively simple, this is not necessarily a weakness, but on the modelling side the contribution of the paper appears to be rather limited to the design of labor market which is characterized by the key feature of labor contract duration. On the other hand, results are interesting, statistically sound and presented in a clear way. I have particularly appreciated the application of the global sensitivity analysis technique and the ensuing quite detailed discussion of main findings of computational experiments about inequality. On this side, the paper surely would deserve publication provided that two major shortcomings and some minor issues are addressed:

1. The authors should discuss more clearly the added value of their model as well as its limitations (considering that policy makers are missing from the design), in particular within the context of other agent based models of the labor market, such as Dosi et al (2018) and Dawid et al (2012)
2. I appreciate the solid model foundations on the stock-flow consistency (SFC) approach, however the model description along the SFC lines is not fully correct. In particular, Table 2 is wrong since it is not correct to define savings as the sum of the upper columns, which include the variation of deposits or loans as well. Actually, the last row should include more correctly zeros, which are the difference of the cash flows and the variation of deposits (with negative sign). Alternatively, the last row could simply contain the variation of deposits as the sum of net cash flows in the upper columns. Savings can be defined as the sum of net cash flows, but only those referred to the current account, then excluding for example cash flows related to new loans. I would suggest the authors to get more acquainted with the SFC model descriptions. A standard reference in this respect is the Godley-Lavoie book (2012), a recent reference about the application of the SFC tables to agent-based model is Mazzocchetti et al. (2018).

Finally, if  $I$  represents unsold goods, it should not appear as positive cash flow on the firms column. Who paid for them? None, therefore the first row should contain only a  $+C$  on the firms cell that correctly balances the  $-C$  in the households cell.

Minor issues:

- a) Eq. 4 is not complete. It should specify as well the case  $V_{it} < 0$
- b) The definition of leverage, see Eq. 9, is quite unusual since usually leverage is defined as debt to equity ratio or assets to equity ratio, i.e. the denominator includes equity not deposits. Please, provide some justification or reference about this choice.
- c) According to the definition of consumption budget, see Eq. 13, the marginal propensity out of wealth is identical to the marginal propensity out of income, i.e. it is defined by the same parameter  $c$ . However, this is quite at odd with empirical evidence and literature as well, which states that while marginal propensity out of income is close to 1, the marginal propensity out of wealth is much lower.
- d) Households' total contribution to refinancing defaulted firms should show up in Table 2.

## References

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