**Response to Reviewers**

**Manuscript title:**

**“Testing for convergence clubs in real wage across Indonesian provinces from 2008-2020”**

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This report concerns our corrections of the revised manuscript with title: “**Testing for convergence clubs in real wage across Indonesian provinces from 2008-2020**” submitted to the Regional Statistics. We would like to thank Reviewer for providing comments to improve our paper. We modified some parts of the manuscript following the suggestion by the Reviewer. We highlighted the modified parts in red as requested. We hope the responses are satisfactory and the manuscript is acceptable for publication.

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**Comments from Reviewer 1**

**[1.1]** The manuscript certainly has improved. I have, though, a remaining quibble that I do not think the authors have addressed well in the revised version. It concerns the procedure used to deflate nominal wages into real wages. They dismiss my urge to estimate the absolute cost of living levels across regions. I can understand that the data required to do so is lacking. Then the lack of data provides the argument for their failure to estimate cost-of-living differentials across regions. We can live with that. So say that up front in the paper. Instead, they argue in the revised version of the paper that they also have accounted for cost-of-living differentials by deflating each regional wage series in nominal terms by each region's cost-of-living index, pretending that the cost differentials are the same in the reference year. This argument is nonsense, and it therefore must be removed from the manuscript. They also argue that the nominal wage mirrors cost-of-living differentials. Well, to some extent it does but if that was the only meaning of a nominal wage why would we then bother to deflate in the first place. The average wage of a region above all represents the rate of returns to labour inputs. This rate is determined by many factors, for instance workers’ average skill levels as well as the composition of industries in each region. The aim of estimating cost-of-living differentials is to remove them from nominal wage differentials. This gives us a measure of labour’s purchasing power. By using an index, the only thing that is removed is the change in cost-of-living over time. To approve of this manuscript, the authors must be able to clarify why they have not estimated cost-of-living differentials properly and what consequence this has for the interpretation of the results.

***Response:***

Thank you for the suggestion. We improved the conclusion section by adding the following sentences:

*The presence of club convergence from our result is similar to the finding of Neagu (2020) in the context of regional wages analysis in Romania.*

*Our findings are not only compatible with the theoretical underpinnings of the convergence concept, but they are also comparable to past club convergence investigations (Bartkowska & Riedl, 2012; Cutrini, 2019; Von Lyncker & Thoennessen, 2017).*

We also added the following paragraph regarding the limitation of our study and further research avenue:

*One limitation of this study, however, is the relatively short observation timeframe to study wage convergence. This may have an impact on the estimation of club convergence, as the power of the log t-test falls as the time dimension shortens (Phillips & Sul, 2007, 2009; Von Lyncker & Thoennessen, 2017). Furthermore, based on the geographical distribution of the clubs, one is tempted to conclude that real wage in Sumatra island converge perfectly to club 3, except Riau islands. This might not be the case when the spatial unit used is at the district level, as observed in the context of regional income convergence in Indonesia (Santos-Marquez et al., 2021). Therefore, future studies could investigate regional wage convergence at the district level across Indonesia, subject to data availability. Such studies would allow to look more deeply at the role of spatial dependence within a province and between adjacent districts belongs to different provinces in shaping regional wage.*

*Please see the improved conclusion section on page 19-21.*