

Referee Report for “XXXXX”

November 20, 2017

1 Summary

This paper studies how changes in the importance of factors in production generate differences in wages for the skilled and the unskilled. The authors constructed a three-sector model with skilled-urban, unskilled-urban, and unskilled-rural sectors, and analyzed the effects of a change in the share parameter in the sectoral Cobb-Douglas production function on wages for the skilled and the unskilled in the economy. The paper’s Proposition 1 shows that, when the capital-share parameter for the urban-skilled sector increases from zero to some positive number, the wage gap between the skilled and the unskilled can increase or decrease depending on the amount of capital accumulated in that sector. The authors did the same analysis for the urban-unskilled sector and the rural sector, and showed the similar results. Finally, the authors show that the results don’t change even when they extend the model to include unemployment or to an open economy.

2 Major Comments

I am not satisfied with the paper’s analysis. The authors didn’t define or characterize an equilibrium on the growth path. Also, I didn’t find a motivation for the analysis in this paper. Even though the authors claim that their analysis is similar to Acemoglu and Guirrieri (2008), I note that Acemoglu and Guirrieri (2008) didn’t assume the changing share parameter as in this paper. Acemoglu and Guirrieri (2008) assumed a constant share parameters, while the values of them are different across sectors. Therefore, I don’t think the analysis of this paper fits to that literature even though the authors claim it does.

2.1 No Characterization of the Equilibrium

In Proposition 1–3 (which I presume the main propositions), the authors claim that whether the skilled-unskilled wage inequality increases or decreases relies on the amount of the capital (or land) accumulated in each sector. Therefore, the result essentially depends on the steady-state level of capital accumulation, while no steady-state equilibrium definition or characterization is provided in this paper. Although it is not always necessary to define and to characterize an equilibrium of a model, it would still give us useful information on how the capital accumulation level depends on the underlying primitives in the economy, and thus, how the assumptions on underlying primitives matter for the skilled-unskilled inequality when the capital-share parameter changes. Thus, I recommend the authors to extend the model to a dynamic environment, define a steady-state equilibrium, and then do the same type of the experiments.

2.2 No Long-Run Effects

Related to my points in Section 2.1, in Proposition 1 – 9, no long-run effects are analyzed when there is a change in the capital-share parameter. That is, when the capital-share parameter changes, the firms will change their factor demand, and thus, in the long-run, the level of capital accumulation in each sector will change. When there is an increase in the capital-share parameter, for example, the firms will pay more for the capital since the marginal productivity of capital increases, and thus there will be more capital accumulated in the steady state. Therefore, after the change, in the long-run, the level of the capital accumulation will be different from the initial level, which might change the magnitude and even the direction of the effects on the skilled-unskilled inequality. So, the dynamic, long-run effects of capital accumulation can potentially change the results of the propositions. Therefore, again, I recommend the author to extend the model to a dynamic environment, and analyze the long-run consequence of changes in the share-parameter.

2.3 Change in the Capital-Share Parameter?

While the authours wrote “this paper follows the spirit of Acemoglu and Guerrieri (2008) and Liu (2012) in modeling structural change,” the analysis conducted in this paper is not similar to either of the two papers referred. Acemoglu and Guerrieri (2008) analyzes the unbalanced growth path assuming that there is a dfference in the capital-share parameter in the production functions of the two sectors. However, they didn’t consider the case where the share parameter itself is changing over time. Liu (2012) also did the similar analysis

to that of Acemoglu and Guerrieri (2008) allowing a more general form of the production functions. But, Liu (2012) also assumes that the share parameter is constant over time. Therefore, I wonder how much it is accepted to change the value of the share parameter in the structural transformation literature. The authors should explain this point clearly.

Also, in the introduction of this paper, the authors emphasize the role of the government for structural transformation. Is there any empirical evidence that the government's policy affects the intensity of capital in production? Or, is there a literature that emphasizes the effects of public policy on the capital share in production? The authors should provide a clear motivation for their exercise of changing the capital-share parameter.

3 Minor Comments

Hereafter, I address relatively minor issues in the paper.

3.1 Rural Sector

To analyze the effects of changes in the capital-share parameter on inequality, why do you need the rural sector? Isn't it enough to have only the skilled and unskilled sectors?

3.2 Introduction

In the introduction, the authors should explain the paper's contribution before the literature review, in my opinion. Currently, the paper's contribution is most well explained in the fifth paragraph in the introduction, which the authors could move to the second paragraph.

3.3 Full Employment

The authors often write "a full employment economy." But, the full employment is an outcome of the frictionless labor markets. Therefore, I recommend to write "an economy with frictionless labor markets," instead.

3.4 Typos

In the fifth line on page 4, K_X should be K_Y . It looks like a typo.