## Answer to the referees' comments

## August 22, 2018

I am grateful to both referees for reading the paper and for their supportive and constructive reports I have done my best to address most of their comments. In what follows I address the bullet points of Referee #1 (the one which starts with "this is an interesting..."

- I apologize for not being clearer about the price normalizations. There are three traded goods, one imported and two exported. Their prices are treated as exogenous because the city is assumed small relative to the global market size of those goods. In turn, we can normalize those prices to 1 without loss of generality, since the productivity parameters  $a_i$  and 1/b can always be interpreted as being expressed in value terms (relative to the numéraire) as opposed to physical units. This is more carefully explained in the new version.
- The land balance condition in the city ignores land as an input to production (of good 2) because I am restricting the analysis to a regime where in equilibrium all land-intensive economic activity is located in the periphery. Therefore, in such an equilibrium, 100% of the available amount of land in the city, X, is allocated to housing. The equilibrium condition would be different in a regime where some of the production of good 2 would be located in the city. In such a regime, the equilibrium condition for land would be like  $X = H + bY_{C2}$ , where H is total city population and  $Y_{C2}$  is total city production of good 2. However such a regime is not of interest for analysing the "bobo" phenomenon and characterizing it would just lengthen the paper. Therefore I focus on equilibria where  $Y_{C2} = 0$ . This is made clear, I believe, in statement 1 of the subsection called "locational decisions". On the other hand, for the sake of completeness, Table 1 lists the payoffs for all worker types in all possible situations, including some that do not actually arise in the equilibria that I analyze.
- Thank you for pointing out the confusing, dual use of t as a notation for the land input and for time. The land input is now relabelled x, consistently with the notation used for the total supply of usable land in the city, X.
- Housing is a consumption good, but the demand for housing is completely inelastic: each individual consumes exactly one unit of housing. For this

reason, the income available for the consumer good is equal to total income minus the rental cost of housing. The latter is equal to zero in the periphery where we assume there are more available housing units than the total population, implying, as demand is totally inelastic, a zero equilibrium price of housing in the periphery.

- I agree that the overlapping generations structure brings little compared to a simpler static version of the model. Therefore, the discussion in the text focuses on that static version, which also saves on notation, and the overlapping generations version is now described in the Appendix as an extension.
- I have clarified notations whenever they are introducing, in particular making it explicit that A, B, C refer to regimes I,II and III.
- It is correct that the discussion of the equilibrium conditions derives necessary conditions. Nevertheless, taken altogether, these conditions are also sufficient, although as stated in the initial version of the paper, some of them involve endogenous variables. I have now clarified that by adding explicit formal propositions that establish necessary and sufficient conditions for equilibria in each regime to exist.
- In a footnote added to the section entitled "geography", I have cited a couple of real-world examples of conversion of land from transportation usable by commuters into recreational use.
- I have made the description of data sources more concise.
- I have decided to keep the existing structure of production and consumption. It is true that the model could be simplified by starting with indirect utility and ignoring the production structure, but I believe some important insights regarding the role of the new economy and the importance of land for the old economy would be lost. The presentation, however, is nevertheless simplified due to the OLG structure being scrapped from the main text.

I will now address the comments raised by referee #2 (the one starting with "the paper sets out to explain...")

The referee is right in pointing out that the model ignores agglomeration externalities, unlike, for example, the mentioned paper by Seegert. This is for simplicity only, as city cize is assumed fixed, which can be viewed as an extreme form of agglomeration externality (infinite congestion externality above the assumed city cize, infinite agglomeration externality below it). The referee suggests that an alternative mechanism to the one proposed in the paper is that the new economy benefits more from the agglomeration externalities than the old economy. This may well be true and could be a way of endogeneizing the rise in the productivity of the new economy,  $a_1$ , which is assumed in the model.

However while this would explain the bobo takeover it would not per se explain their different choices for amenities nor the possibility of bunkerization. These result arise from the assumption that the old economy is more land-intensive. To sum up, I do agree that agglomeration would enrich the model and allow it to deliver more predictions (which is mentioned in the new version of the paper). However the current version captures the essence of the mechanism I want to analyze. I am also grateful to the referee for pointing out the potential role of the vintage of the housing stock, but I do think this aspect is quite remote from the mechanism at hand (it seems that cadres prefer recent vintages while bobos have a taste for renovating ancient vintages; I am not sure one can provide a purely economic explanation for this, but the model has nothing to say regarding this dimension of the bobo phenomenon).

I am grateful to the referee for pointing out to me the relationship between my work and the paper by Seegert (which is indeed similar in spirit although quite different) as well as the literature on the use of house prices and wages to measure amenities. I have refereed to these aspects in the Introduction.