Referee Report on "Bobos in Paradise: Urban politics and the new economy" by Gilles Saint-Paul

This is an interesting and also puzzling paper. It uses a partial equilibrium model of urban location choice to explain how the social class called "Bourgeois Bohemes" (bobos) move into downtown areas of European cities in equilibrium, Paris especially. The questions is framed with interesting description of preferences and characteristics of bobos, which is different from another class of urban residents called "Cadres". The bobs are perceived to have a higher skill level, and the most significant traits of bobos are that they prefer high amenity levels in the city and would be willing to pay high transportation costs. There is also a class of service workers, called "Workers," in the model.

The model has two locations (city and suburb), three types of workers (bobos, cadres, workers), five types of goods (one consumption good, two export goods produced by bobos and cadres respectively, a service good produced by workers, and land/housing). This is a partial equilibrium model, therefore, it is importance to let the readers know clearly what market is being equilibrated.

- At first, it seems odd that wages are determined without product prices as $w_2 = a_2 (1 - bR_i)$ on page 6, and $w_1 = a_1$ (not solve, but used in Table 1, page 10). Let's suppose product prices are p_1 and p_2 . (i) Production function $y_1 = a_1h_1$ needs a fixed portion of type 1 labor h_1 . The wage is determined as revenue $= p_1y_1 = p_1a_1h_1$, which equals payment to workers w_1h_1 . So, $w_1 = p_1a$. Zero-profit is assumed. Looks like the price of type 1 export good is also normalized to $p_1 = 1$. (ii) The same thing happens to the price of type 2 export good, which is also normalized to one according to the formula $w_2 = a_2 (1 - bR_i)$ on page 6, otherwise, it would be $w_2 = a_2 (p_2 - bR_i)$. This is from a perfectly complementary production function under zero-profit, revenue = wage plus land cost. Actually, the price of the consumption good is normalized to one in the paper already. This means three prices are normalized to one in the model.
- The city has X amount of land with rent R_i . The suburb has unlimited land and rent cost is zero. On, page 7, it says "each unit of land can be converted into one unit of housing...," but "in practice we will not distinguish between housing and land." Page 6 shows $y_2 = \min(a_2h_2, t/b)$, t is the land input, and in the expression of w_2 , " R_i denotes the rental cost of housing in location i." There seems to be a confusion in the model, that mixes up land input for production and housing for consumption. (i) Table 1 shows that income of type 2 (Cadres) working in city has two R_t inside, the cost of land input is deducted from the wage, and then housing cost is paid. There is land input for type 2 production, and also housing for cadres. (ii) However, the total land in city X is only used for summing up population, but not counted as input. The land balance condition ignores land for input. This seems to show that type 2 can work

at home, but rent show up twice in income. An additional confusion here is the subscript for R, which becomes t for time?

- The model is said to have overlapping generations on page 8, Section 2.4. Housing price is defined as q_t when household in the first period of their lives buy houses. It is confusing that the subscript t is for time period or location. We can see that R_i has i for location on page 6, but R_t is used in Table 1. Symbol t is also used as land input in $y_2 = \min(a_2h_2, t/b)$ on page 6.
- A special feature of the model is that housing is not a consumption good. The house rent is a cost deducted from city income. Residents in the suburb do not need to pay rents.
- The overlapping generations model is only used when describing regime transition on page 21. In the whole paper, only housing price q_{t+1} has a next period time; all other variables are static. Households do not foresee next period in making decisions now, no overlapping generation decision making. Parameter a_1 has a time subscript only on page 21, a_{1t} and a_{1T-1} . This is confusing too. The regime change can be described more concisely with a comparative static argument on changing a_1 .
- Some variables are define at will and without much explanation. Subscript A appears in R_A , λ_A , μ_A in the analysis of Regime I, B for Regime II. This can be declared more explicitly.
- With partial equilibrium analysis, the location equilibrium is not fully solved. The parameter ranges of four types of equilibria (called Regimes) are discussed. Notice that these ranges are necessary conditions for each regime but may not be sufficient.
- The positive relationship between amenity level and transportation cost is an assumption, it can use some more motivating argument from the real world.
- The data source on page 42 can be made more concise.
- Figures are too elementary and not needed for the paper. On the other hand, the four cases of population distribution can use some graphic representation to help readers visualizing.

This model is overly complicated, with many variables specified (as constants) but not used in equilibrium or decision-making. The model is essentially static, not dynamic. Comparative static argument can be used to describe the dynamic migration phenomenon. This model has no quantity equilibrium; all prices are constant. The only equilibrium conditions used are mobility equilibrium in all workers' location choice.

I do think this paper can be greatly improved by making the model simpler. Since there is no endogenous consumption choice, production quantities and prices can be assumed away. Simply use utility functions with locational income and spend the income on housing and consumption good. It is OK to keep housing outside utility since suburb rent is simplified to zero. A revision of the model will help potential readers greatly.