Crowning The Metropolis: Skylines, Land Values, and Urban Population

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Universitat de Barcelona Urban Workshop 2022

Intro

- Literature on skyscrapers and central land values.
- Ahlfeldt and McMillen (2018): Technology to build (very) high.
- Albouy et al. (2018): Measurement of central land values
- Combes et al. (2021): Housing Production function in France + Recent work by Trannoy, Chapelle and Wasmer on central land values.

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Following Duranton and Puga (2015)

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   Also: in closed city (fixed N), $R(0) = \underline{R} + \tau N$.

Theoretical (!) Contribution of this Paper

Build Skyscrapers in 2D plain.

- 2D plain, different cities endowed with different geographic expansion potential (related to Saiz (2010))
- Building height *not* equal to capital.
- Relating building footprint and height yields elegant K/L ratio.
- Eventually:

$$d\ln H = \sigma^* \left(\underbrace{d\ln N}_{\text{Pop}} - \underbrace{d ln\theta}_{\text{Arc}} + \underbrace{d\ln m}_{\text{Income}} - \underbrace{d\ln v}_{\text{constr. cost}} + \underbrace{d\ln B}_{\text{bias}} + \underbrace{d\ln s - d\ln F}_{\text{p elast and Comm. cost}} \right)$$

Results

- Arc of expansion not statistically significant in Table 1 for height and weakly for value.
- Extensive margin: *effectively endless disc...*
- Arc of extension + value of land outside city?
- Develop open city theory with differential land value at fringe?

References I

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