

Lai and Tsai (2005) “Simplified AMM Model with a Monopoly Vendor”

- motivation: reconsider the role of composite good in AMM model

	availability	market structure	shopping cost	land rent
AMM	ubiquitous	competitive	0	0
Lai-Tsai	a single point	monopoly	+	+

- model

– consumer

$$\text{income} = \underbrace{\text{composite good}}_{1 \text{ unit} \times \text{price}} + \text{land rent} + \text{commuting} + \text{shopping}$$

– vendor (monopolist)

$$\text{profit} = \underbrace{\text{aggregate demand}}_{\text{city size}} \times \text{price} - \text{land rent}$$

- result

The vendor locates at the edge of the city (where land rent = 0)

- why?

The vendor has no incentive to pay high land rent in order to attract consumer demand.

note

- per capita demand is exogenously given as one
- city size does not change regardless of firm's location
- there is no other competing firms in the city

- comments

- contribution: a simple and tractable benchmark model

- robustness/extension of the result:

- * two vendors (Hotelling meets Alonso!) \implies “Hotelling” result?

- * elastic demand (multiple units)

- * “economies of scope”

- commuting cost (to 0) + shopping cost (to z)

- > “commuting and shopping” cost (to $z \approx 0$)