

Solving the Model in Terms of Visits

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Solve the model

- Find 2 variables: v , x visits v tightness x
- Use 2 relations.

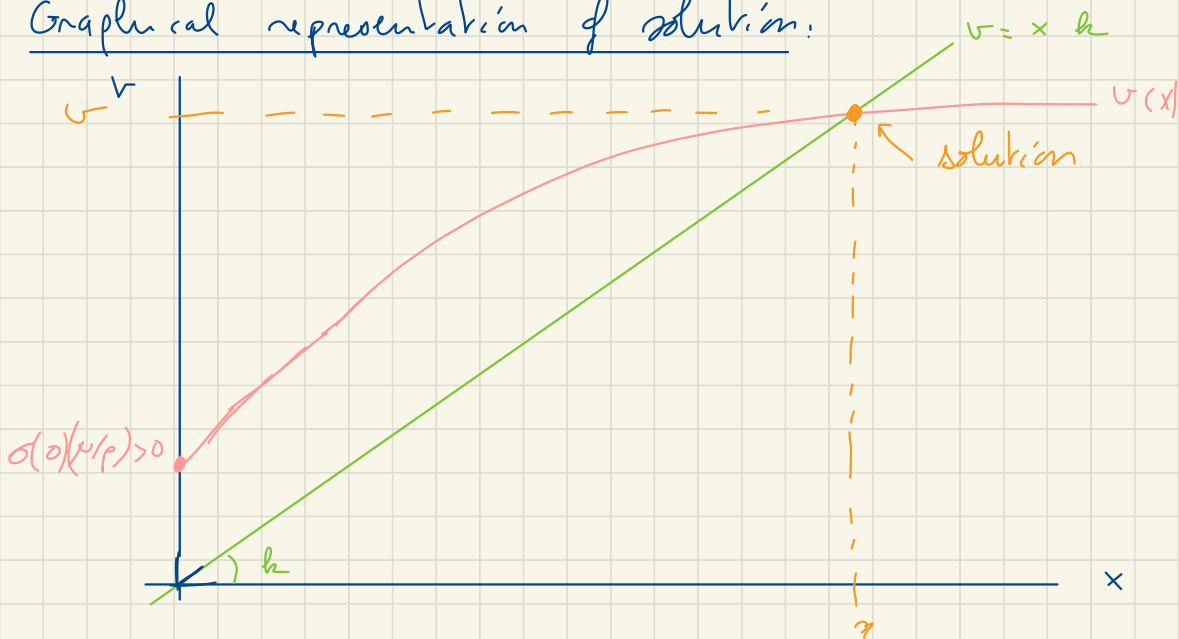
① Households decide visits optimally given x

A.D. $v = \frac{\sigma(x)}{q(x)} \cdot \left[f(x) h + \frac{\mu}{p} \right] \equiv v(x)$

② Definition of tightness :

$$x = v/h \rightarrow v = x \cdot h$$

Graphical representation of solution:



This solution

$$\begin{cases} v = \frac{\sigma(x)}{q(x)} [f(x)h + \mu/p] \\ x = v/h \end{cases}$$

$$\Leftrightarrow \begin{cases} q(x)v = \sigma(x) [f(x)h + \mu/p] \\ q(x)v = q(x)x h \end{cases}$$

$$\Rightarrow \begin{cases} y = \sigma(x) [f(x)h + \mu/p] \\ y = f(x) h \end{cases}$$

$$\Leftrightarrow \begin{cases} y = \sigma(x) [y^s(x) + \mu/p] \\ y = y^s(x) \end{cases}$$

$$\Rightarrow \begin{cases} y = \frac{\sigma(x)}{1-\sigma(x)} \cdot \frac{\mu}{p} = y^d(x) \\ y = y^s(x) \end{cases}$$

y on AS curve

$$\Rightarrow \begin{cases} y = y^s(x) \\ y^s(x) = y^d(x) \end{cases}$$

↑ tightness equalizes
AS & AD