

Slack-Dependent Marginal Propensity to Spend

Pascal Michailat
<https://pascalmichailat.org/c2/>

Household i :

Purchases of services:

$$y_i = \sigma(x) \left[f(x) k_i + \frac{w_i}{p} \right]$$

where $\sigma(x) = \frac{x^\varepsilon [1 + \tau(x)]^{1-\varepsilon}}{1 + x^\varepsilon [1 + \tau(x)]^{1-\varepsilon}}$, $\sigma(x) \in (0, 1)$

Real wealth holdings (savings)

$$\frac{m_i}{p} = [1 - \sigma(x)] \left[f(x) k_i + \frac{w_i}{p} \right]$$

$\in (0, 1)$

Consumption:

$$c_i = y_i / [1 + \tau(x)]$$

Visits:

$$v_i = y_i / q(x)$$

Marginal propensity
to spend

Marginal propensity
to save

How do the marginal propensity to spend and save vary with scale / with the state of the economy?

What happens if tightness (x) is higher:

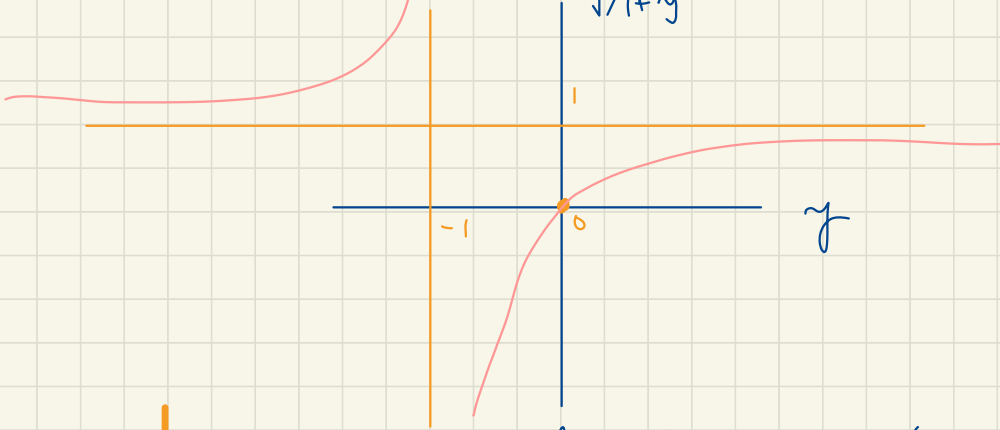
• Income ($f(x)$ or k_i) is higher

• What happens to $\sigma(x)$?

- $\tau(x)$ is \uparrow in x

- $[1 + \tau(x)]^{-1-\varepsilon}$ is \downarrow in x ($\varepsilon > 1$)

- $y \rightarrow y/(1+y)$ is \uparrow in y
 $\downarrow/(1+y)$



• $\sigma(x)$ is therefore \downarrow in $x \in (0, x^m)$

• $\sigma(0) > 0$

• $\sigma(x^m) = 0$

• Share of income + initial wealth spent on services is lower ($\sigma(x)$)

• Share of income + initial wealth saved / placed as real wealth is higher ($1 - \sigma(x)$)

• Share of purchases devoted to consumption is lower ($1 - \tau(x)$)

• Share of purchases devoted to marketing is higher ($\tau(x)$)

- Marginal propensity to spend is lower in tighter economy → buying is more complicated, visits are less likely to be successful, larger share of spending devoted to matching
- Marginal propensity to save is higher in tighter economy

$$c = \frac{y}{1 + \tau(x)} \approx [1 - \tau(x)] y$$

$$\left(\frac{1}{1+x} \approx 1-x \text{ when } x \approx 0 \right)$$

$\tau(x) \approx$ share of spending devoted to matching

→ Share of spending devoted to matching is higher in a tighter economy.

→ Share of spending devoted to consumption is lower in a tighter economy