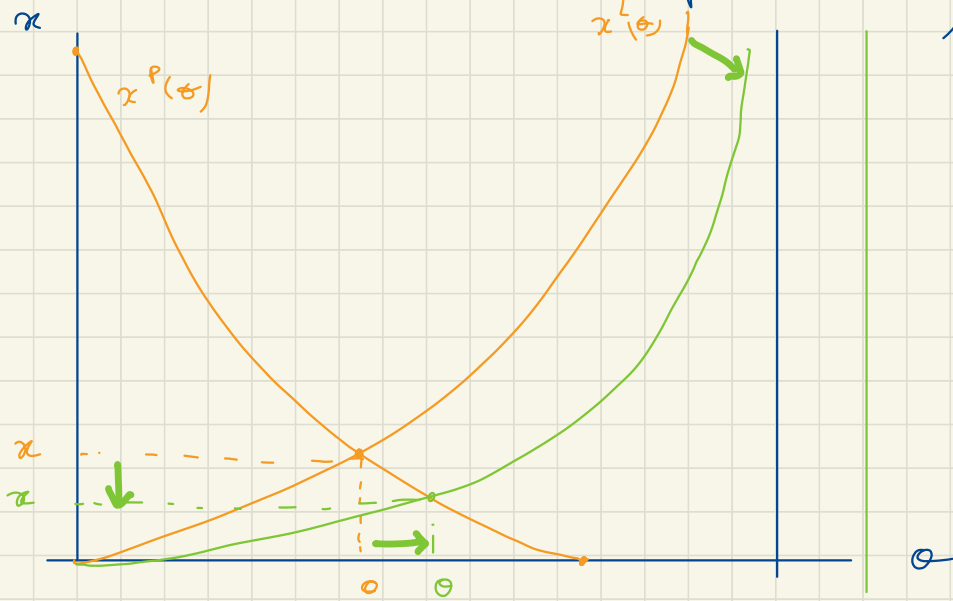


Technology Shocks with Fixed Prices

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Positive technology shock. increase in a

$$\begin{cases} x = x^L(\theta) = f^{-1} \left(\frac{w/p}{a} h^{1-\alpha} \hat{f}(\theta)^{1-\alpha} [1+\hat{\tau}(\theta)]^\alpha \right) \\ x = x^R(\theta) = \tau^{-1} \left(\left[\frac{x^\xi \mu \alpha}{w \cdot h} \frac{1}{\hat{f}(\theta)} \right]^{1/\xi-1} - 1 \right) \end{cases}$$



After an increase in technology a

- $\theta \uparrow$ [$\hat{f}(\theta) \uparrow$, $1-\hat{f}(\theta) \downarrow$, $q(\theta) \downarrow$, $\hat{\tau}(\theta) \downarrow$]
- $x \downarrow$ [$f(x) \downarrow$, $1-f(x) \uparrow$, $q(x) \uparrow$, $\tau(x) \downarrow$]
- $l = \hat{f}(\theta) h \Rightarrow \underline{l \uparrow}$
- $y = \frac{x^\xi}{[1+\hat{\tau}(x)]^{\xi-1}} \cdot \frac{w}{p} \Rightarrow \underline{y \uparrow}$

key difference b/w technology & AD shocks is

the response of $\alpha \rightarrow$ then to look at
product market tightness to separate AD &
technology shocks.

$$- \quad c = \frac{w}{(1+z(x))} \quad \text{so } c \uparrow$$

$$- \quad \hat{v} = \frac{l}{q(x)} \quad \text{so } \hat{v} \uparrow$$