

Aggregate Supply in the Heterogeneous-Agent Model

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Aggregate supply

Household i sells $y_i = f(x) \times k_i$

Aggregation: all households sell

$$\begin{aligned} y &= \sum_i y_i \\ &= \sum_i f(x) \cdot k_i \\ &= f(x) \sum_i k_i \end{aligned}$$

$$y = f(x) k = y^S(x)$$

$y^S(x)$ aggregate supply curve

↳ AS curve is the same as in the representative - agent model.

Alternative derivation: $y = m(\sum k_i, \sum v_i)$

$$y = \left(\sum k_i \right) m(1, \alpha)$$

\uparrow \uparrow
 k $f(x)$

$$y = f(x) \cdot k$$