## Comments on J. Fisher's "Why Does Household Investment Lead Business Investment Over the Business Cycle?"

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- Goal of the paper: Build a model consistent with the behavior of residential and non-residential investment over the business cycle.
- ► Three stylized facts:
  - Residential investment leads business investment.
  - Residential investment is more volatile than business investment.
  - Co-movement between both types of investment.
- ► Jonas's paper hits all three targets!

- Innovation with respect to previous models: Household capital useful in market production.
- Houses and household durables make workers more productive.
- ► Double motivation:
  - ▷ Re-generation (Why not food, health,...?)
  - ▷ Co-location (I like this one better).

Improvements vs. new homes behave the same way, helps with Jonas's dual interpretation.



- ► Why it works:
- Investing in household capital helps getting:
  - Home-produced goods.
  - Market-produced goods.
- Result: A positive z<sub>t</sub> shock leads to higher investment of both types and proportionately higher household investment.

- Choice variables: (p. 7) optimize by choosing  $k_{t+1}, s_{1,t+1}, s_{2,t+1}, \ldots, s_{J-1,t+1}, s_{J,t}, h_{n,t}, h_{c,t}$ .
- ► Time-to-build technology:
  - Choose to build a plant, ready to produce in J periods.
  - ▷ Pay 1/4 in each period.
  - $\triangleright s_{J,t}$  choice of plant.

- ►  $s_{J,t-1}$  plant chosen the previous period.
- ► By law of motion  $s_{J,t-1} = s_{J-1,t} = s_{J-2,t+1}$ . Still a "state".
- Choose  $c_{m,t}, n_{h,t}, n_{m,t}, h_{n,t}, s_{J,t}, h_{t+1}$  given  $h_t, k_t, \{s_{i,t}\}_{i=1}^{J-1}$

- Upper-right impulse response in Figure 5: Why that delay (even decrease) in business investment?
- Technology implies incentive to invest in both types.

► Overall, a simple (∴ appealing) model that reconciles RBC theory with "idiosyncratic" investment behavior.