

Oren Sussman

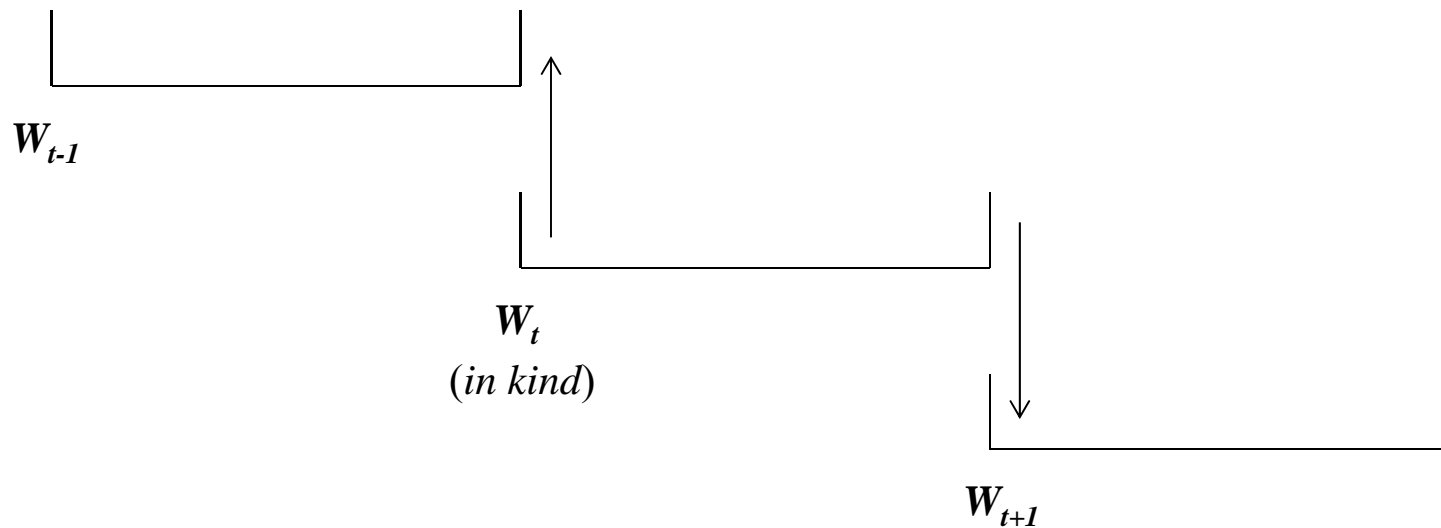
Bubbly Collateral and Economic Activity

Discussion of Martin and Ventura

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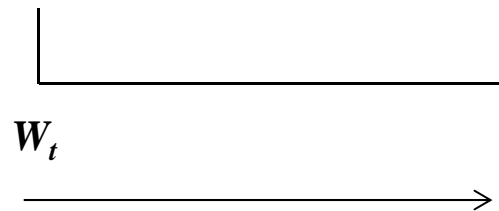
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Basic Problem: type S



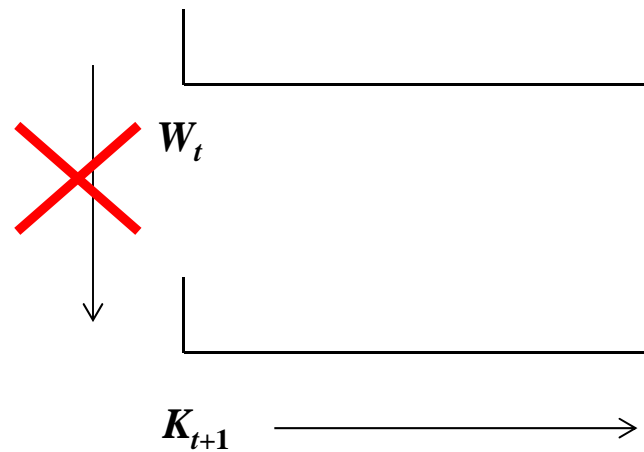
- Samuelson (1958): *no coincidence of means and wants*
- Solution: money, *no intrinsic value*, nevertheless has market value
 - period t : sell potatoes for money
 - period $t+1$: spend money buying potatoes

Additional ingredient: inventories



- Gross rate of return (in real terms): 1

Type *E*



- Constant returns to scale technology
- Capital fully depreciate by the end of the period
- Weak enforcement: capital cannot be pledged as collateral

“Firms”

- Names without assets, *corporate shells*
 - intrinsic value
 - no role in operations
 - not even an institutional contribution
- Still, they do have a positive value in equilibrium
- *Money?*
- Trade is monopolized by the by the *E* type

Why does money (firms) have value?

- Although capital cannot be pledged as collateral
- Money can (quite the contrary of the standard assumption)

$$R_{t+1}(V_t + K_{t+1}) \leq V_{t+1}$$

$$K_{t+1} \leq \frac{V_{t+1}}{R_{t+1}} - V_t$$

- Monopoly \rightarrow profit, used to secure funding

Lemma: the unique stationary- V equilibrium is a shut-down

$$K_{t+1} \leq \frac{V_{t+1}}{R_{t+1}} - V_t$$

- If V is stationary and R non-negative
- Type E cannot borrow
- At $t=0$ all the endowment will go to storage
- Leaving the economy with no capital at $t=1$
- And no income for there after

Recovering equilibria without a shut-down: growth (in effective labour)

$$Y_{t+1} = K_{t+1}^\alpha (\gamma^{t+1} N_{t+1})^{1-\alpha}$$

- Once the economy is growing
- And nominal money is fixed, by the *quantity theory of money*
- Prices are falling, like in a *Friedman Rule economy* – firms are funded
- *Deflation is good!*

Indeterminacy (continuum of equilibria)

- There is an infinite number of prices that can qualify as equilibrium
 - *stationary* and *sun-spots*
- Having a *real* effect on the economy
- This indeterminacy problem is well-known in OLG models with money
- Interesting theoretically
- A big problem in applications

The two equilibrium regimes (stationary-“calm” bubble)

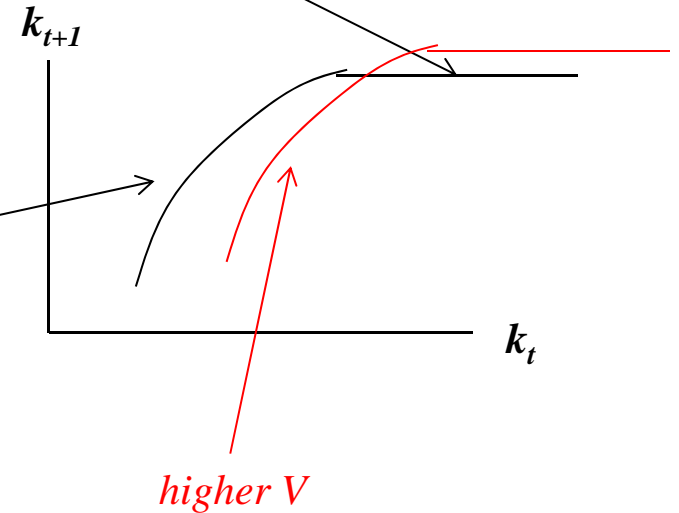
- Storage: $R_{t+1}=1$
 - investment is restricted by the capital gains on real balances

$$K_{t+1} = V_{t+1} - V_t, \quad W_t - K_{t+1} = I_t$$

- No storage, $I_t=0$

$$K_{t+1} < \frac{V_{t+1}}{R_{t+1}} - V_t,$$

$$W_t = K_{t+1} + V_t$$



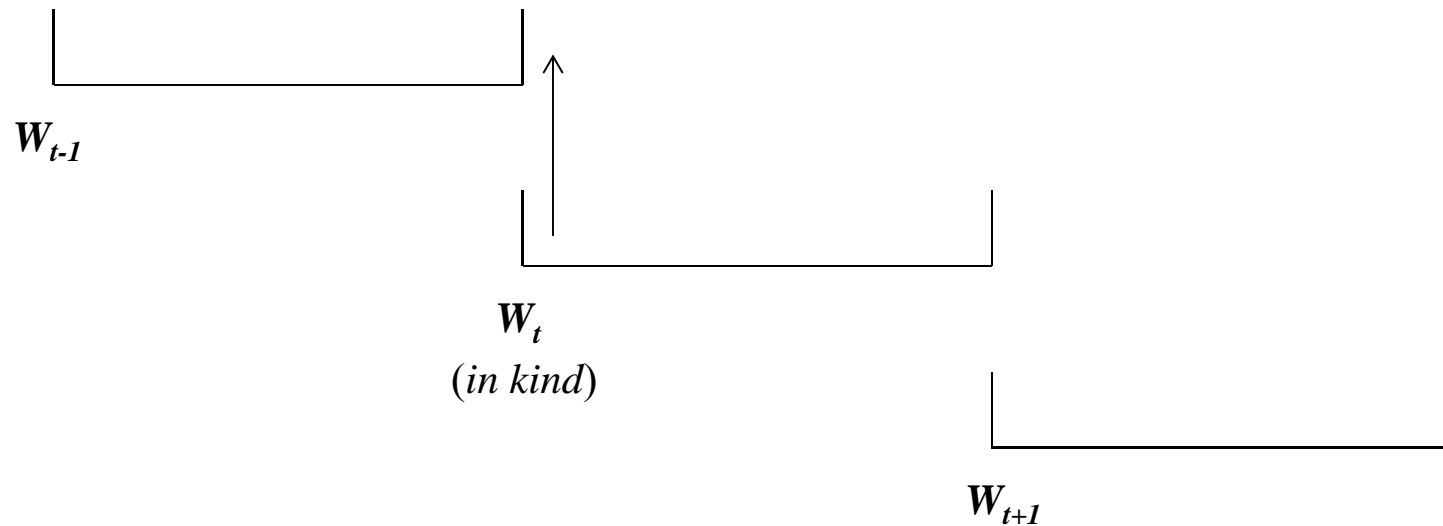
My main question: if $K_{t+1} < \frac{V_{t+1}}{R_{t+1}} - V_t$,

- Why should entrepreneurs overly-spend buying securities
 - or hold money balances?
- If they have enough, they should scale down demand
- Which, in equilibrium, would push prices down
 - and the graph up on impact
 - but then, as K grows, V will have to grow with it
- There seems to be a way to pin-down prices
 - resolve the indeterminacy problem
 - *create a price dynamics towards a more efficient equilibrium*

A question about efficiency

- No clear definition of the constraints in the CPO
- Weak definition of efficiency: no inventories
 - no reference to the *golden rule*
 - or to the value of the bubble
- Is the Tirole (1985) condition for a bubble relevant to this model?
- If not, can a modified condition be derived?

Bailouts: a transfer from t -young to t -old



- Within the constraint population,
 - not from the unconstraint to the constraint
- Due to **growth**, more payers than receivers
- Alternatively: more deflation by decreasing the money supply

Summary

- I agree with the basic instinct of the paper
- Funding based on appreciation of financial securities is very dangerous
- At some point the trend would reverse
- Which would exacerbate financial constraints
 - like in Suarez&Sussman (2008) model of endogenous cycles