Discussion of "Wealth and Volatility"
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Toulouse School of Economics – CEPR

ESSIM 2012 – Tarragona

Three main ideas

1. Consumption depends on expected income - and actual income depends on consumption (Idea # 1)
2. The level of an household wealth affects its ability to smooth consumption (Idea # 2)
3. Fluctuations are partly driven by sunspots (Idea # 3)

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2. Then I will briefly explain J & F modelling choices
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- The idea that consumption depends on expected income, and income on consumption is the core of the Keynesian Cross
- Prices are fixed, no investment, labor supply is inelastically 1
- Production function : $Y = L$
- Consumption function : $C = C_0 + \alpha w L$
- unemployment is $u = 1 - L$
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- Consumption : $C = C_0 + \alpha(1 - u)$
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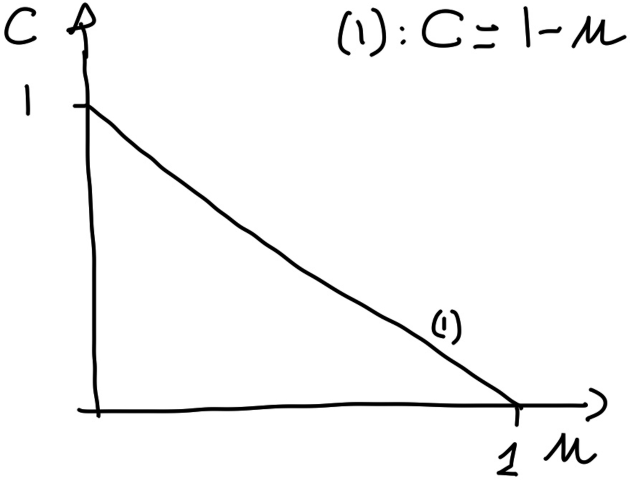

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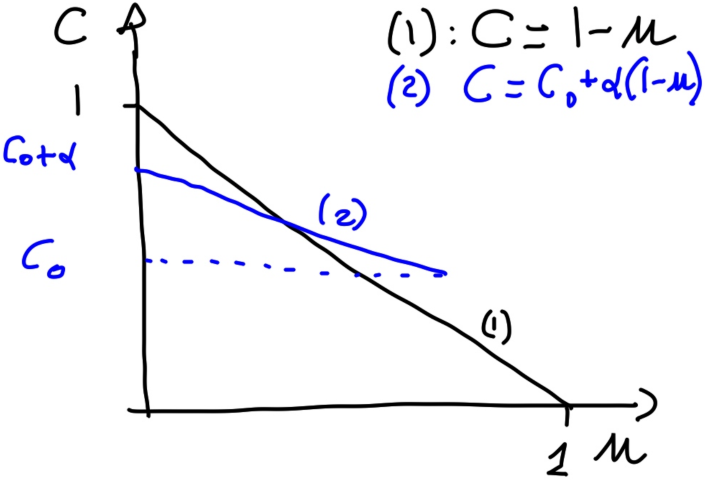

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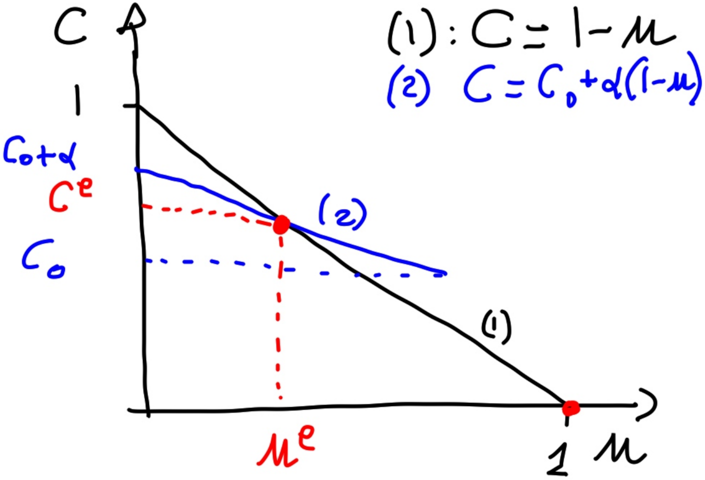

A Keynesian Cross

Adding Wealth Effects

- Assume now that households hold houses, with price P
- Fixed supply of houses $H = 1$, such that total wealth is P
- Assume that wealth affects the average propensity to consume, not the marginal propensity to consume
- $C_0 = C_0 \underbrace{(P)}_{+}$

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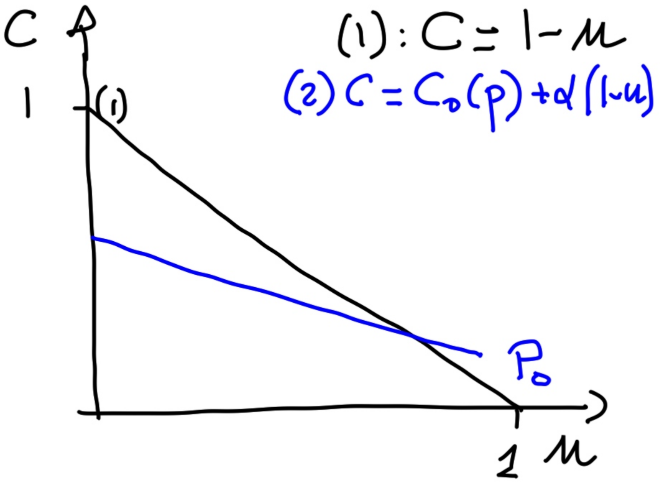

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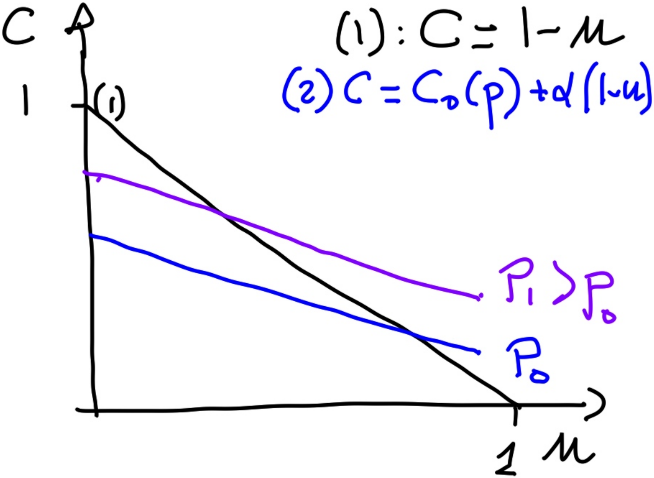

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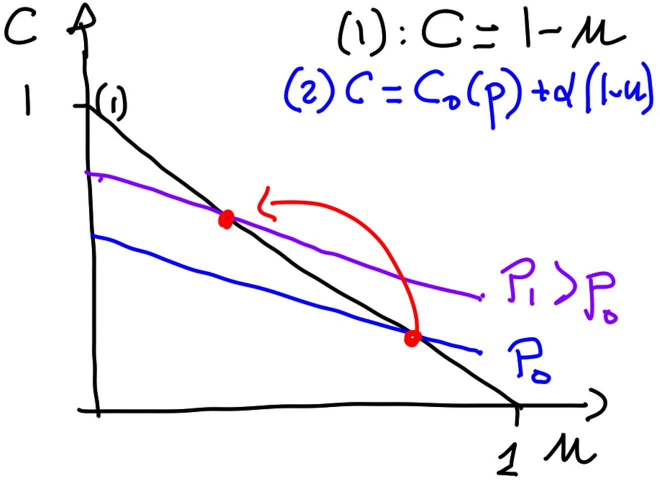

A Keynesian Cross
Adding Wealth Effects

- An increase in the price of houses decreases un employment.

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Adding Rich Wealth Effects

- Assume a more general consumption function $C(P, u)$
- Assume that little wealth (P low) implies a higher sensitivity of C to income $1 - u$ ...
- ... particularly so when income is low (u is high)
- (Idea # 2)

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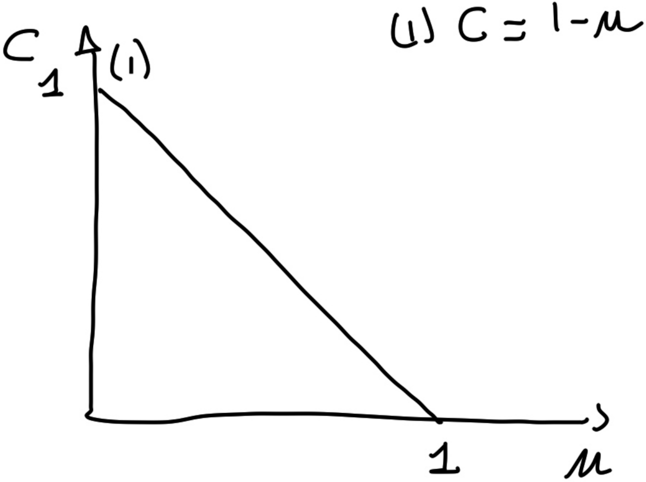

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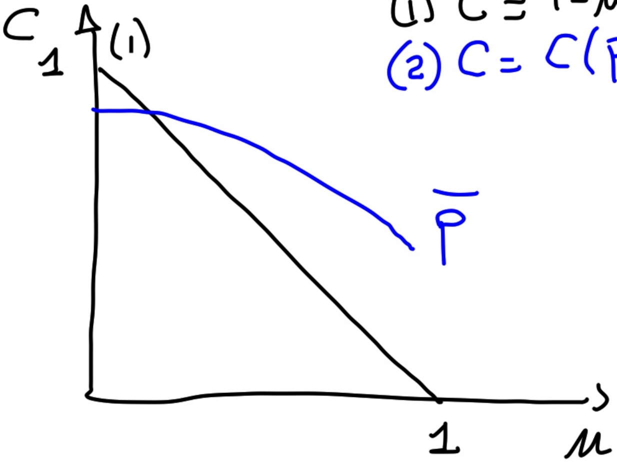
(1) $C = 1 - u$

(2) $C = C(\bar{p}, u)$



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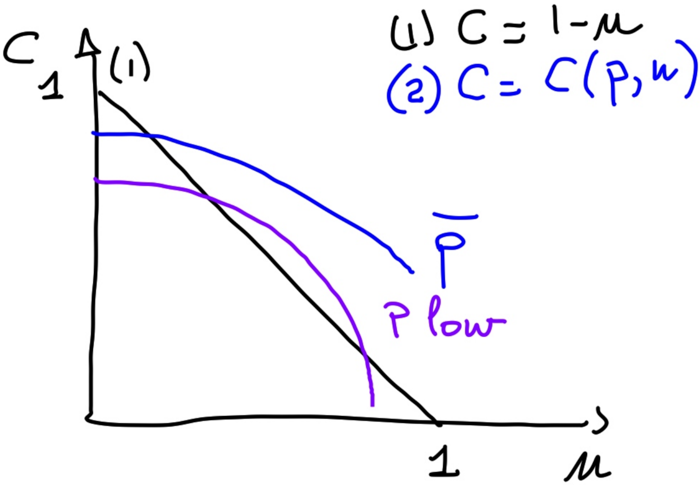

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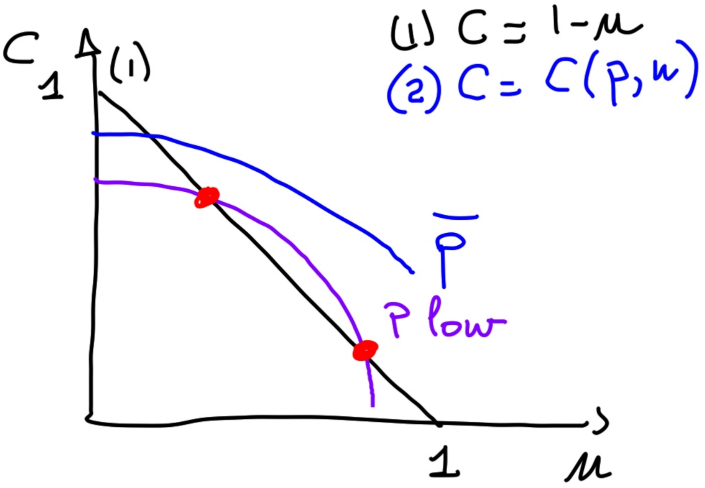

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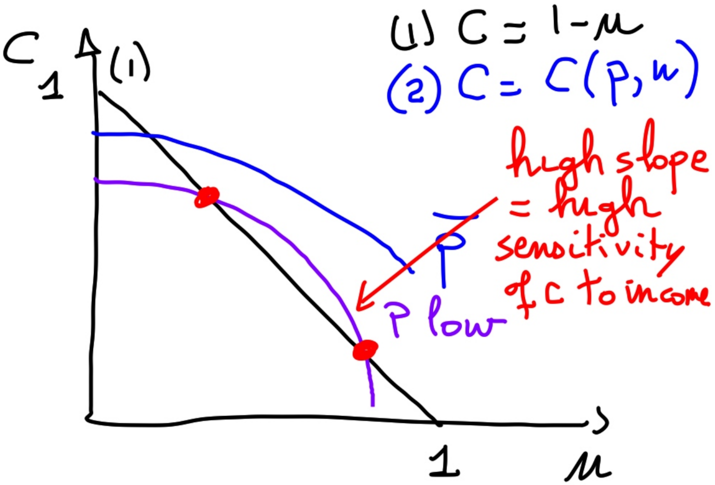

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An Extreme Case

- Assume that houses price is so low that households cannot disconnect at all consumption from current income (which is $1 - u$)
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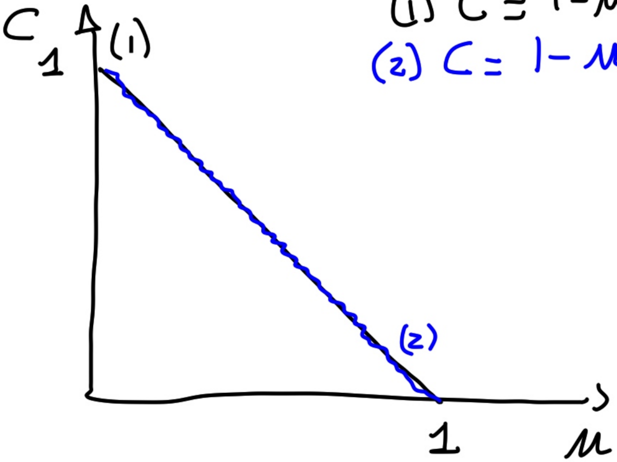

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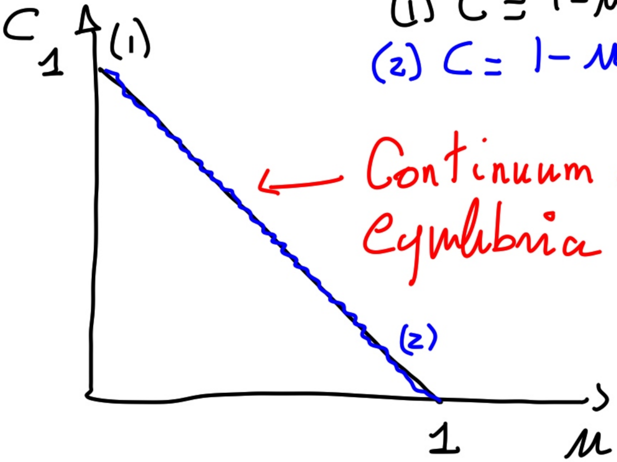

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Continuum of equilibria

A Keynesian Cross

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- The model possesses a continuum of equilibria
- If we assume that the economy jumps between equilibria according to a sunspot, we have a link between wealth and volatility.
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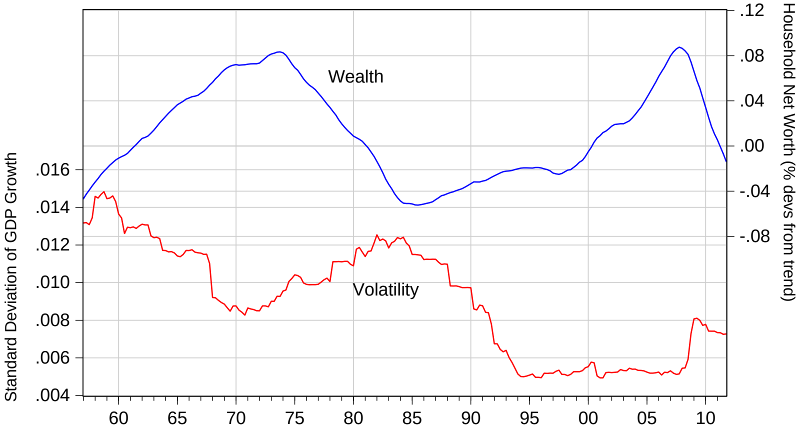

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Stabilizing Policy in an Extreme Case

- In this case it is possible to design a simple and extremely efficient stabilizing policy:
  - Tax income at rate $1 - \tau$
  - Redistribute in a lumpsum way a fraction γ of the tax revenues $\tau(1 - u)$
  - $1 - \gamma$ percent of the tax revenues are lost (deadweight loss)

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(1) $C = 1 - \mu$

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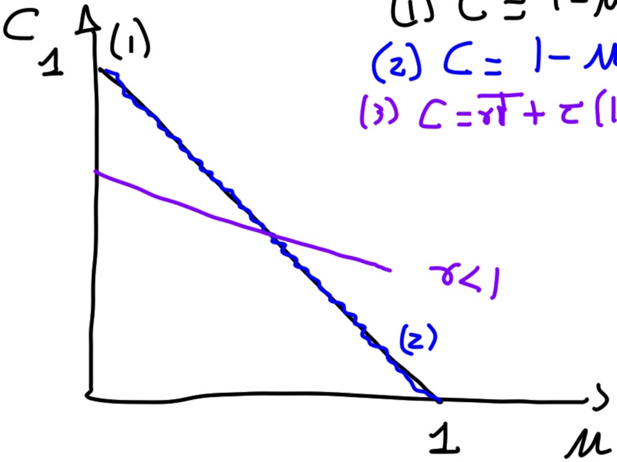
(3) $C = \overline{\gamma T} + \tau(1-\mu)$



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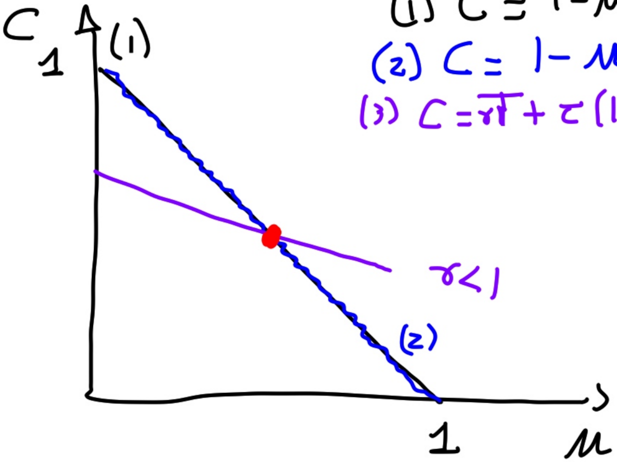

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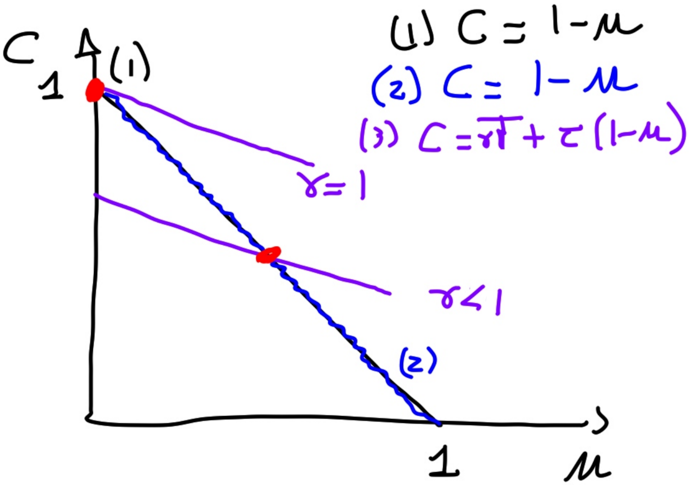

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Idea # 1: Consumption depends on expected income - which depends itself on consumption

- modeled by assuming that labor supply is inelastic and that households commit to consumption

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Idea # 2: The level of an household wealth affects its ability to smooth consumption

- Here there is more than the Permanent Income model:
  - Because consumption is chosen before income is known, houses can serve for precautionary savings.
  - But if their value is too low, unemployed households will have to go to costly credit.

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- Microevidence: The question is
  - "Did wealth-poor households reduce consumption more than rich households as unemployment rose during the Great Recession?"
  - This must be *ceteris paribus*
  - Aren't wealth rich agents less affected by unemployment risk? income risk?
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