$$\cancel{\lambda U(C_1) + (1-\lambda) U(C_2)}$$

$$\text{Max} \quad \lambda U(C_1) + (1-\lambda)\xi U(C_2)$$

$$m(N) = N(1-I) \Rightarrow N \to \infty$$

$$\lim_{N\to\infty} \frac{m(N)}{N} \to \lambda$$

$$MRS = MRT$$

$$\text{s.t.} \quad \lambda C_1 = 1 - I$$

$$(1-\lambda) C_2 = RI$$

1. Initial wealth allocation:

$$U(C_1) = \frac{1}{1-S} C^{1-S}$$

$$\frac{dU(C)}{dS} = \frac{C^{1-S} \cdot (\ln(C) \cdot S - \ln(C) + 1)}{(S-1)^2}$$

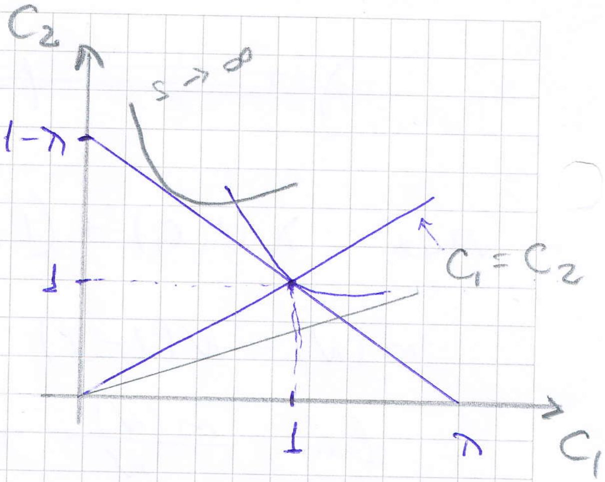
$$\frac{d}{dC}\left(\frac{1}{1-S}\right) \cdot C^{1-S} = C^{-S} = \frac{1}{C^S}$$

Consumption in the first period for any number is less than second period. (for the second-patient consumer). There will be no liquidation.

2. The consumer - impatient - type 1 will have the higher consupption in the first period I since he consumes all. It is ~~optimal~~ uneven because it fits preferences of consumer.

What if $s \to \infty$

Optimal consumption goes to second period.



3. $(C_1^* \; C_2^*)$ optimal deposit constraint C_1^* to each λ
C_2^* to each $1-\lambda$ (late consumer)

$$\lambda C_1 + S \leq (1-\lambda) C_2 + R$$

4. Based on their beliefs $t=1$ ~ impatient consumers withdraw their money.
Where everyone withdraw money most probably whether there is a systemic risk (~~f~~ fundementally) or panic among the consumers.

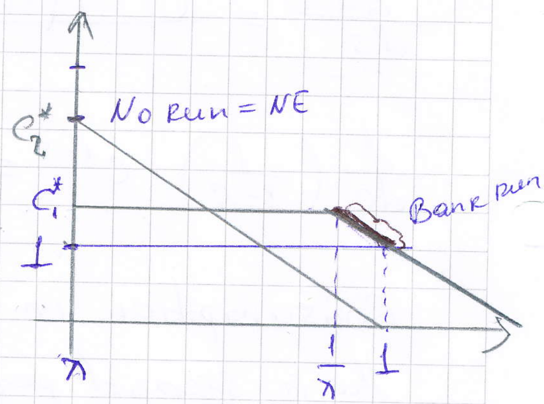
$\hat{\lambda} = \lambda + (1-\lambda)x \qquad x \in [0,9]$

x ~ fraction of consumers who withdraw early.

$L=1$ no liquidation cost, costs $= 0$.

$I = 1 \qquad \hat{\lambda} C_1^* < 1$

$\hat{\lambda} \; C_2 = 1$



	R	W
R	(P, P)	(0, W)
W	(W, 0)	(W, W)

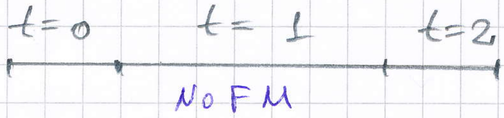
[Allen and Gale]
For Problem 3.

5. $R < \frac{1}{p} \Rightarrow I = 0$ return on savings is smaller than retur on bonds,

So people have incentive to invest insteading of saving

$pR = 1 \Rightarrow R = \frac{1}{p}$ rate of returns on bond is equal to the price of the bond so market is in equilibrium so there is no incentive to take rick and buy bonds,
There is no NE. when $pR = 1$.

6.



We are given money at $t=0$. Since there is no FM in all periods those small group of abnormally anxious people will cause panic. So everybody will want to withdraw their money at $t=1$.
This is the only point where equilibria exists.

$\hat{\lambda} = \lambda + (1-\lambda)X$