Preventing Runs with Redemptions Fees

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  - Market NAV depends on redemptions at the end of the day
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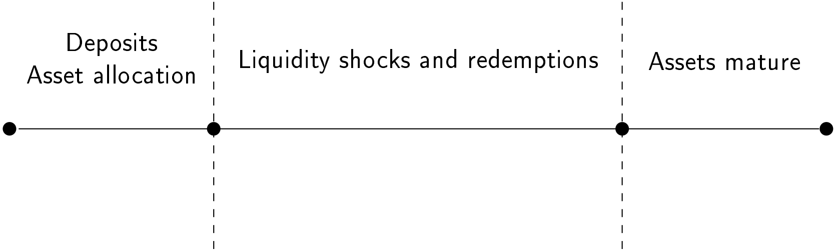
  - 2014 (after 2008): Redemption fees when liquidity is low ⇒ Preemptive runs
  - 2023 (after 2020): Redemption fees contingent on current demand

Almost a Standard Banking Model



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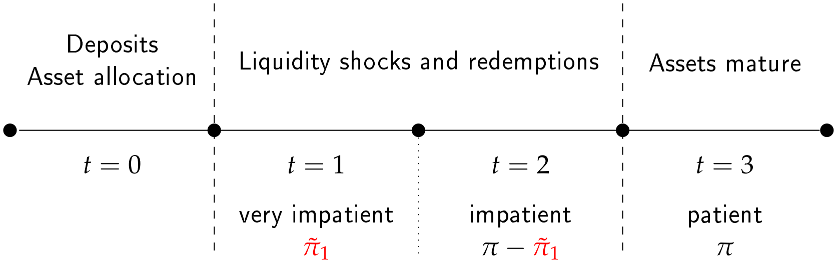

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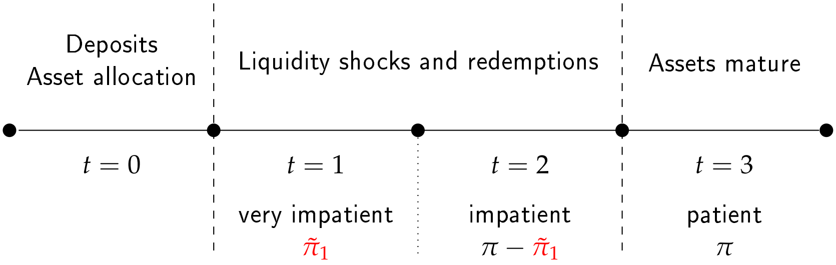

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  - Very impatient $u(c_1)$, impatient $u(c_1 + c_2)$, patient $u(c_1 + c_2 + c_3)$
  - Share of very impatient $\tilde{\pi}_1$ consumers is unknown
- Only a fraction δ of patient investors can run at $t = 1$

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  - However, it is not run always proof - depends on max size of run δ
- Run-proof constraint at $t = 1$

$$\mathbb{E}_{\pi_1}\left[u\left(c_1\left(m_1\right)\right)\right] \leq \mathbb{E}_{\pi_1}\left[p_n u\left(c_2\left(m_1, m_2\right)\right) + \left(1 - p_n\right) u\left(c_3\left(m_1, m_2\right)\right)\right]$$

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  - $c_2\left(m_1, m_2\right)$ and $c_3\left(m_1, m_2\right)$ are chosen optimally (TC) after observing m_1 and m_2
- How can we attain run-proof contracts?
  - decreasing c_1 (reducing risk sharing)
  - making c_1 contingent on the state (m_t) to incorporate liquidation costs
- Optimal run-proof contract features both

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5. A lot one can do! And the paper does a lot
   - Portfolio restrictions vs. redemption fees, uncertainty about δ, robust planner