Price Norm and Monetary Policy

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Real interest rate. key price in the model

↳ price of government bonds relative to service.

$\dot{p}(t)/p(t)$, given by price norm

$$r(t) = i(t) - \pi(t)$$

$i(t)$: monetary policy

Price norm: prices grow at constant inflation rate π.

$$p(t) = p(0) \cdot \exp(\pi \cdot t)$$

$$\pi(t) = \frac{\dot{p}(t)}{p(t)} = \pi$$

Monetary policy: - central bank follows interest rate peg

$$i(t) = i$$

- central bank is subject to zero-lower-bound constraint: $i \geq 0$. (ZLB)

Real interest is fixed

$$r = i - \pi$$

Assumption: $r < \delta$, but r can be < 0