March 22

Monetary Policy and the Phillips curve

Long run equilibrium is our starting point

$\bar{Y}$: potential, LR equ'm output

$\bar{r}$: "natural" rate of interest

$\bar{u}$: "natural" rate of unemployment, or Non-Accelerating Inflation Rate of Unemployment (NAIRU)

Federal Reserve targets federal funds rate
~ FFR: interest rate for interbank overnight loans

Fisher Equation:

$$i = \bar{r} + \pi$$

nominal   real   inflation rate
interest   interest
rate   rate

$P = \$100$	$i = 5\%$

$\rightarrow \$105$

$\pi = 3\% \rightarrow \$100$ at start of yr costs
$\$103$, so your add'l rate of
return is $\$2$, or 2%

Alternatively, we can write it as

$$r = i - \pi$$

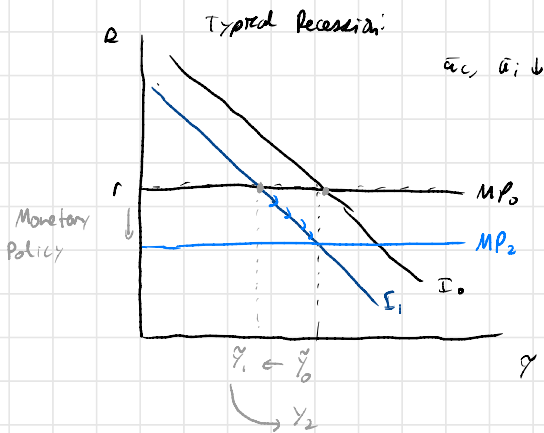## Ex post and Ex ante:

ex post
$$r = i - \bar{\pi} \text{ actual}$$
ex ante
$$r = i - \bar{\pi} \text{ expected}$$

Sticky inflation assumption:
- expectations update slowly
- contracts are fixed and nominal
- Menu costs - cost associated with changing prices

Example:
1) housing bubble bursts, $\bar{a}_c$ and $\bar{a}_i$ ↓

2) Federal Reserve drops interest rate

3) Fiscal policy ↑ gov't spending and ↓ taxes

Typical Recession:

$\bar{a}_c, \bar{a}_i$ ↓

Monetary Policy

Central banks cannot lower i to below zero