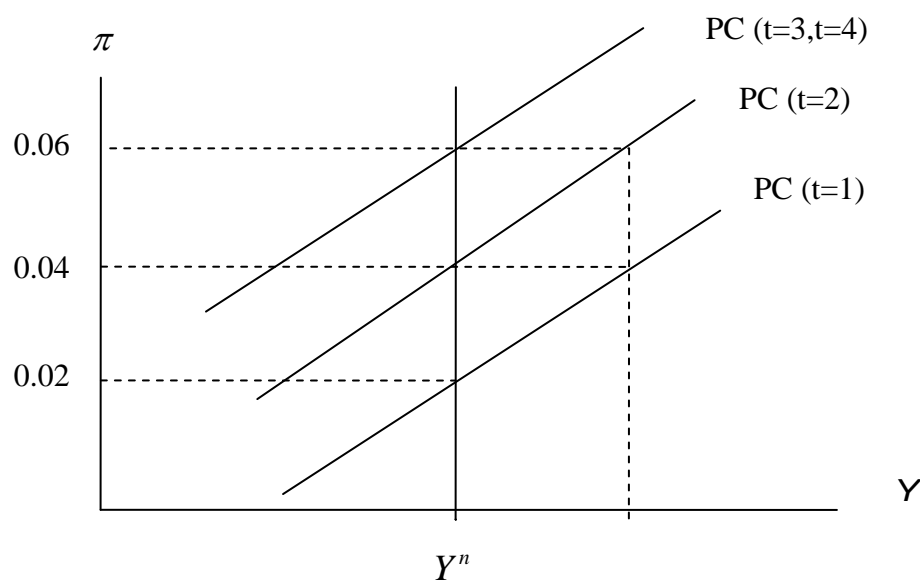


1. $\pi_t = \pi_{t-1} + \hat{Y}_t$ $\pi_0 = 0.02$
 $\pi_1 = 0.02 + 0.02 = 0.04$
 $\pi_2 = 0.04 + 0.02 = 0.06$
 $\pi_3 = 0.06$ $\pi_4 = 0.06$

Inflation persists because expected inflation has increased.



2. $\pi_0 = 0.02$
 $\pi_1 = 0.02 + 0.02 = 0.04$
 $\pi_2 = 0.02 + 0.02 = 0.04$
 $\pi_3 = 0.02$ $\pi_4 = 0.02$

Since expected inflation does not change, inflation returns to 2 percent.

- 3.
- Inflation increased in the late 1960's and early 1970's so people came to expect high inflation. Also, oil prices increased in 1973-74 and this fed through into other prices.
 - The natural rate of unemployment appears to have increased compared to the 1960's, maybe because of more generous unemployment benefits, labour

market regulation, and strong unions. Also, there was a cyclical downturn after the boom in 1973-74 and the oil price increase.

4. $0.03 = 0.09 + \hat{Y} \Rightarrow \hat{Y} = -0.06$

5. On the one hand, a smaller output gap over several periods may be preferred to a large output gap in one period. If expected inflation is equal to inflation in the previous period, an output gap of -2 percent will give

$$\pi_1 = 9 - 2 = 7 \quad \pi_2 = 7 - 2 = 5 \quad \pi_3 = 5 - 2 = 3.$$

On the other hand, a clear policy to quickly reduce inflation may affect inflation expectations if they are not completely backward-looking. In this way, a “big bang” approach may lead to a lower total loss in terms of production and employment.

6. $\pi_1 = 0.02 + 0.02 = 0.04 \quad \pi_2 = 0.04 \quad \pi_3 = 0.04$

Inflation remains high after the shock because expectations have changed.