

EE312 Macroeconomics, 1/2020 (Sec. 046401/ Sicha) :

Chapter 4. Theory of Inflation Determination

1. Stylized fact of inflation

- Positive inflation is a global phenomena. // Inflation outcome has varied across countries (lower for the advanced economies, lower inflation tends to associated with lower inflation volatility)// Declining trend of inflation has been a global phenomena and inflation volatility has reduced too. // CPI inflation exhibits some cyclical patterns, core inflation is less volatile. Both core and headline inflation are positively correlated.

2. Key Question? : LR = What drive the average inflation? , SR = How to explain the cyclical relationship of inflation (Phillip relation)

3. General theory of inflation : long-run perspective

- The Quantity Theory of Money : $MV = PY \Rightarrow \% \Delta M - \% \Delta Y = \% \Delta P$. Inflation is always a monetary phenomena. $\% \Delta M > \% \Delta Y \Rightarrow$ Inflation is positive.

4. Business Cycle Perspective and Inflation Dynamic

- Keynesian interpretation : Phillip curve
- beliefs in tradeoffs $\Rightarrow$ policy makers exploited the trade-off, aggressive policy $\Rightarrow$ works well during 1960s $\Rightarrow$ oil price shocks $\Rightarrow$ oil price reach new stable high but inflation does not come down $\Rightarrow$ Expectation-augmented Phillips curve.

4.1 The Expectation-Augmented Phillip Curve.

- Friedmand and Phelps : no such a thing as a permanent tradeoff. Tradeoff exists in the short-run and cannot be exploited. "The role of the natural rate of unemployment and inflation expectation.
- SRAS : $Y = \bar{Y} + \alpha(P - P^e) : P = P^e + \frac{1}{\alpha}(Y - \bar{Y})$ // Output is related to unexpected movement in the price level.
- Phillip Curve : $\pi = \pi^e - \beta(u - u^n)$ // Unemployment is related to unexpected movement in the inflation rate.
- Higher π^e will shift up the Phillip curve.
- Short-run and Long-run Phillip curve

4.2 The Modified Phillip Curve and Adaptive Expectation Hypothesis.

- Adaptive Expectation : $\pi_t^e = \theta \pi_{t-1}$, where $0 \leq \theta \leq 1$
- $\pi_t = \theta \pi_{t-1} - \beta(u_t - u^n)$
- When inflation is closed to zero, they do not bother, θ is near zero. $\pi_t = -\beta(u_t - u^n)$. Traditional Phillip curve is valid.
- High persistent inflation. $\theta = 1$. $\pi_t - \pi_{t-1} = -\beta(u_t - u^n)$
 $u > u^n \Rightarrow$ decelerating inflation. // $u < u^n \Rightarrow$ accelerating inflation. // $u = u^n \Rightarrow$ constant inflation.

5. Rational Expectation and Policy Implication

- Rational Expectation = forward looking
 - An anticipated demand management policy will not matter to real output.
 - Surprised policy matters // Surprised policy matters but not last long. // Neither anticipated nor surprised policy are good for long-term; the damage lasts long.
- Policy Implication
 - Maintaining low inflation is good for the long-term $\Rightarrow$ anchoring low expected inflation.
 - * committing low inflation rate will bring about a low inflation rate.
 - Rule versus discretion : Monetary policy rules are recommended. It makes the way inflation expectation get anchored much more easier than under discretion approach.