

# Comments to "Disinflation, Uncertainty and Monetary Policy Evidence from Mexico"

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# 1 What the paper does?

- Addresses a very relevant policy question. How uncertainty on inflation persistence affects performance of monetary policy?
- Estimate a small scale New Keynesian model using data for Mexico.
- Study optimal discretionary monetary policy when central bank faces uncertainty on the degree of inflation persistence.
  - Central bank has a prior distribution on the degree of persistence
- Some sensitivity analysis with respect to alternative central bank's loss function.

## 2 What does the Paper Find?

- Uncertainty on the degree of inflation persistence, seems to affect the dynamics of the economy more than uncertainty on the other parameters of the model.
- However, under optimal policy, uncertainty seems to have a weak effect on the dynamics of the economy.

### 3 Building Some Intuition

- Simple New Keynesian Model

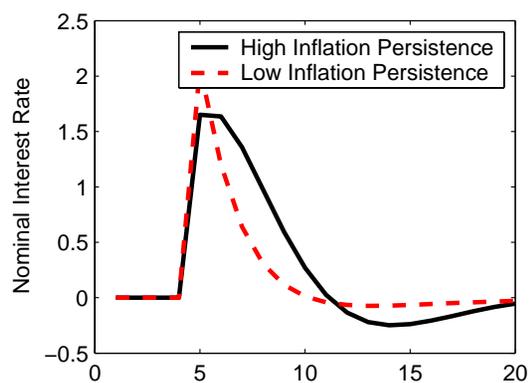
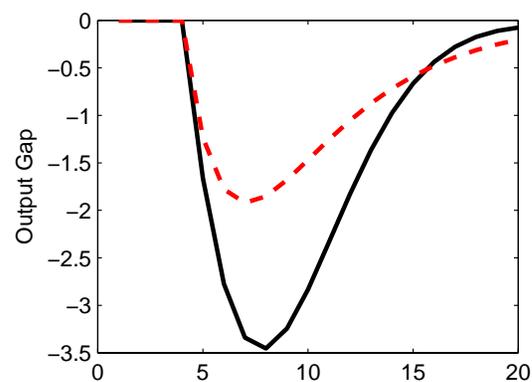
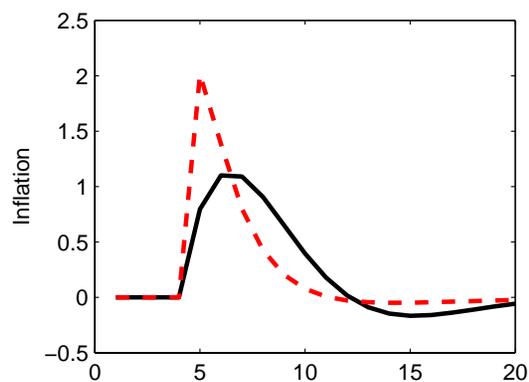
$$x_t = \gamma x_{t-1} + (1 - \gamma) E_t x_{t+1} - \sigma (i_t - E_t \pi_{t+1})$$

$$\pi_t = \lambda \pi_{t-1} + (1 - \lambda) E_t \pi_{t+1} + \kappa x_t + \mu_t$$

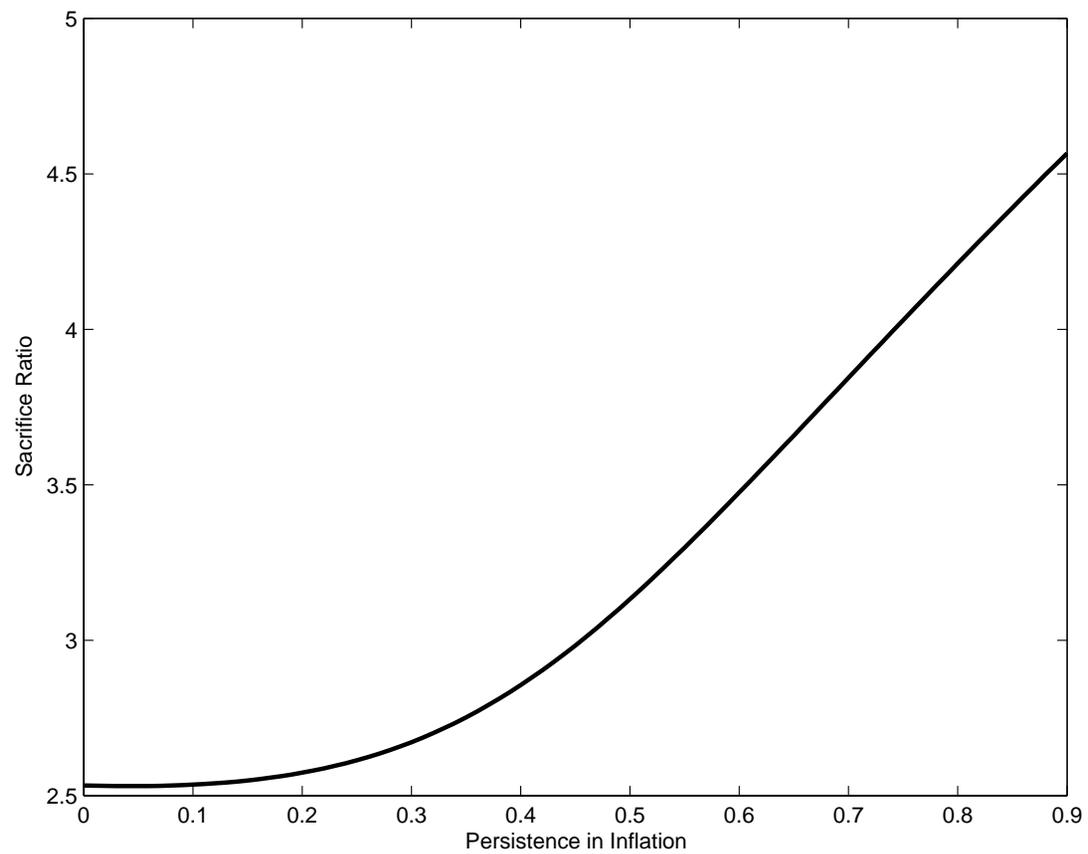
- $\lambda$  measures the degree of persistence. For a given interest feedback rule, we can calculate the sacrifice ratio, as follows:

$$SR = \frac{\sum_{j=0}^{j=K} \frac{\partial x_{t+j}}{\partial \mu_t}}{\sum_{j=0}^{j=K} \frac{\partial \pi_{t+j}}{\partial \mu_t}}$$

## 4 Effects of Inflation Persistence



# 5 Inflation Persistence and SR



## 6 A few remarks

- Comparing impulse responses is useful, however a better metric to compare models across different parameter values is welfare losses.
- Robustness analysis on the prior of central bank would be useful (does the uncertainty irrelevance result depends on prior assumption on degree of persistence?)

## 7 Final Remarks

- An interesting extension could be to measure the welfare losses of policy mistakes.
- What would have been the welfare loss if central banks has a prior that is not informative?
- Robustness across central banks preferences, different weights on inflation, output gap and nominal interest rates