In the name of God
Sharif University of Technology
Department of Economics
Macroeconomics 1 - Spring 2018
Problem Set 9
(Due: 1397/02/10 Monday, before TA session. Work in group seriously.)
No extra credit for the optional ones, unless notes.

1 Readings

1. review Barro Ch 1-7 (There is a quiz on this on Monday TA session)

2. Read Chapter 19 From Mishkin.

3. Read Friedman’s "The Role of Monetary Policy" in detail and summarize it in 1000 words.
   Write it in a way that a person out of economics can understand it.

1.1 Empirical Exercise (1): Money and Prices in the long run

1. Extract the following data from cbi.ir: Mb (Money base), M1(M0+deposits), M2 (Liquidity), Aggregate Price level indices (CPI, PPI and GDP Deflator), Housing price index, Food price index

2. In this problem, we use "moving average" to filter our data. Calculate the moving average of the growth rates of all the money and price measures. Use 3-years windows for filtering.

3. Now in one graph plot the log of filtered price indices (all of the five) versus the filtered data for Mb.

4. Redo part 3 for filtered M1 and M2 data. What do you find?

5. Redo part 3,4 for non filtered price index versus the filtered money. What do you find?

6. Now change he window to 2 years and once for 5 years. How things differ?

7. What do you conclude?
8. (Optional) Use triangular filter to construct your dataset, instead of moving average which is a rectangular filter. Redo parts 3, 4, 5.

9. Setup a regression model to test for the long run effect of money growth rates on inflation. What do you conclude? (You can get hints from Chapter 2 of the "Handbook of Monetary Economics")