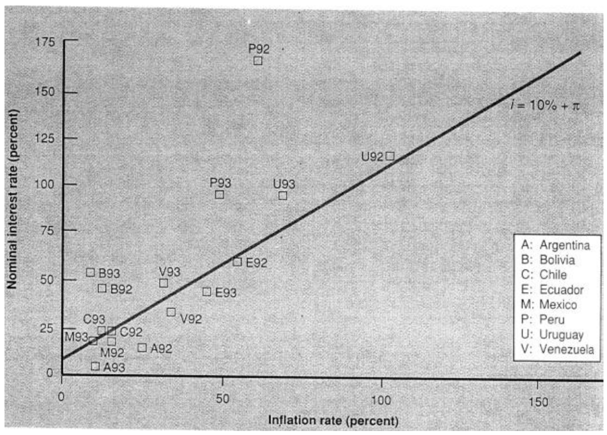
Chapter 4 and 5 Problems

C Level Questions

1. Consider the following observations of nominal interest rates and the inflation rate in Latin America:

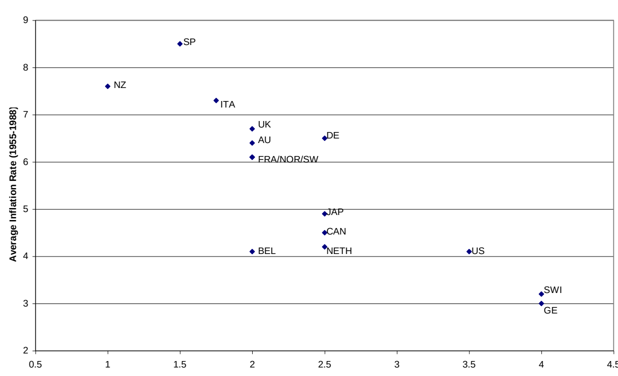


a. Is this data consistent with the Fisher Effect? Why or why not?

b. Consider the line drawn through the above graph. This line is a "best fit" line (linear regression). In short, this line predicts the nominal interest rate given any level of inflation. Does the "Fisher Effect" suggest that the best fit line should go through the origin? Explain.

2. Consider the following relationship between central bank independence from the political system and a country's average inflation rate:

Chart 2: Inflation and Central Bank Independence



The index of central bank independence measures how independent a nation's central bankers are from the political system and politicians in general (0 is least independent and 5 is very independent). It appears from the above diagram that there is a negative relationship between central bank independence and the average rate of inflation. Explain why this is likely to be true.

Do problems and applications #3, 5, 7 on pp. 109 – 110 of Mankiw.

B Level Questions

3. A large number of researchers have attempted to determine the historical relationship between the real interest rate and the level of economic investment in a country. The technique usually applied is to observe many months worth of real interest rates and economic investment, plot these on a graph, and then estimate a line that goes through this data.

a. What would you expect these researchers to find? Why?

b. As real interest rates are not observable, the researchers find the real interest rate by using the Fisher equation: $r_t = i_t - \pi_t$. Researchers can observe current nominal interest rates and later observe the inflation rate that prevailed over the period. Is this the appropriate method to use to estimate the impact of real interest rates on economic investment? If so, why? If not, why not?

4. "Macroeconomists are confused about the impact of reducing money growth on interest rates. Sometimes, they say it will raise interest rates; sometimes, they say it will lower them; and sometimes they say that interest rates won't change at all." Comment.

5. Frequently people will argue that printing more money will aid a nation's citizens because it gives them more money that they can spend in foreign countries. What is wrong with this argument? Be sure to explain carefully.

A Level Work

I've always liked the Cagan model described in the appendix to Chapter 5 however I've never had time to present it in class. You may find this interesting.