HW 9 Inflation 2

Friday, November 6, 2020 2:11 PM

Passed solution review

a. Go to the Federal Reserve Economic Database (FRED) maintained by the St. Louis Fed at https://fred.stlouisfed.org/ and calculate/estimate/retrieve the 2006 average of the *10-Year Treasury Constant Maturity Rate* and the *10-Year Treasury Inflation-Indexed Security, Constant Maturity*, both series maintained in FRED. Based on these, what was the expected annual rate of inflation from 2006 to 2016?

4.8 2.31 ← Filter data to 2006 and take the average

$1+r = \frac{1+i}{1+\pi} \rightarrow 1.0231 = \frac{1.048}{1+\pi} \rightarrow 1+\pi = 1.024 \rightarrow \pi = 2.4\%$

b. Obtain the Consumer Price Index for 2006 and 2016 (FRED has it, or you can get it from the Bureau of Labor Statistics) and calculate the average annual rate of inflation for those 10 years. (Remember, it gets compounded each year to produce the full difference between the 2016 and 2006 price levels.) What do your calculations suggest about the ability to forecast inflation?

2006 = 201.558 ≈ 199.3
2016 = 239.989 ≈ 242.8 $\rightarrow 242.8 = 199.3(1+\pi)^{16} \rightarrow \pi = .012 = 1.2\%$

$239.989/201.558 \approx 1.1906^{1/10} = 1.0176 \rightarrow 1.76\%$

forecasting inflation is less than an exact science. The rate found in Part A is less than Part B.

In the last decade, inflation was half the expected value

$1+i = 1.048$
$1+r = 1.0231 \rightarrow = (1+\pi)(1+$