

CONCEPT: NOMINAL INTEREST, REAL INTERST, AND THE FISHER EQUATION

- **Inflation** describes a general increase in prices over time. We can use the CPI to measure the **inflation rate**:

$$Inflation_{CY} = \frac{CPI_{CY} - CPI_{PY}}{CPI_{PY}} * 100$$

- **Nominal Interest Rate** – The stated rate of interest on a loan
- **Real Interest Rate** – The nominal interest rate _____
 - > The real interest rate shows the effect inflation has on purchasing power

EXAMPLE: You only spend your savings on one essential good: mini porcelain figurines. At the beginning of the year, the price of a figurine is \$20.00. If you use your entire \$2,000 on figurines, you would be able to purchase:

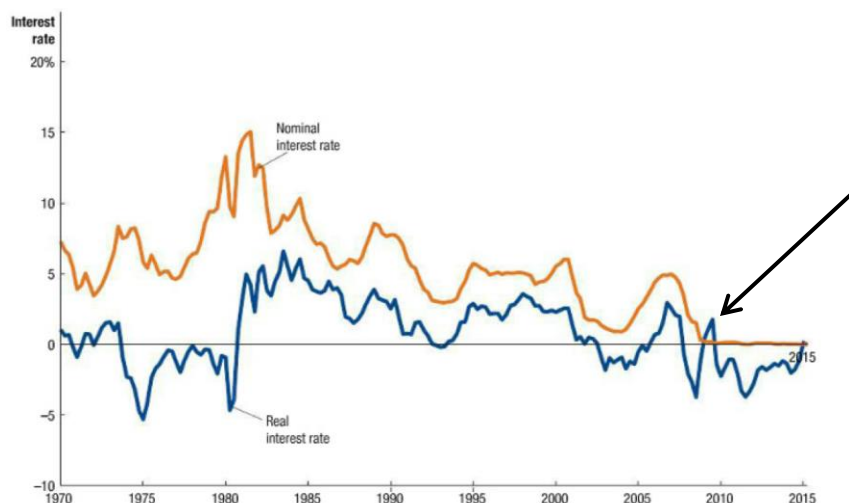
However, suppose you had saved the \$2,000 earning 5% interest throughout the year. If the rate of inflation is 2%, how many figurines could you buy at the end of the year?

You are able to purchase _____% more figurines. The real interest rate you received was _____%

We can use the following formula to approximate the real interest rate at low levels of inflation:

$$Real\ Interest\ Rate = Nominal\ Interest\ Rate - Inflation\ Rate$$

In our example: _____ = _____ - _____



Source: Federal Reserve Bank of St. Louis