Section 8 – 4

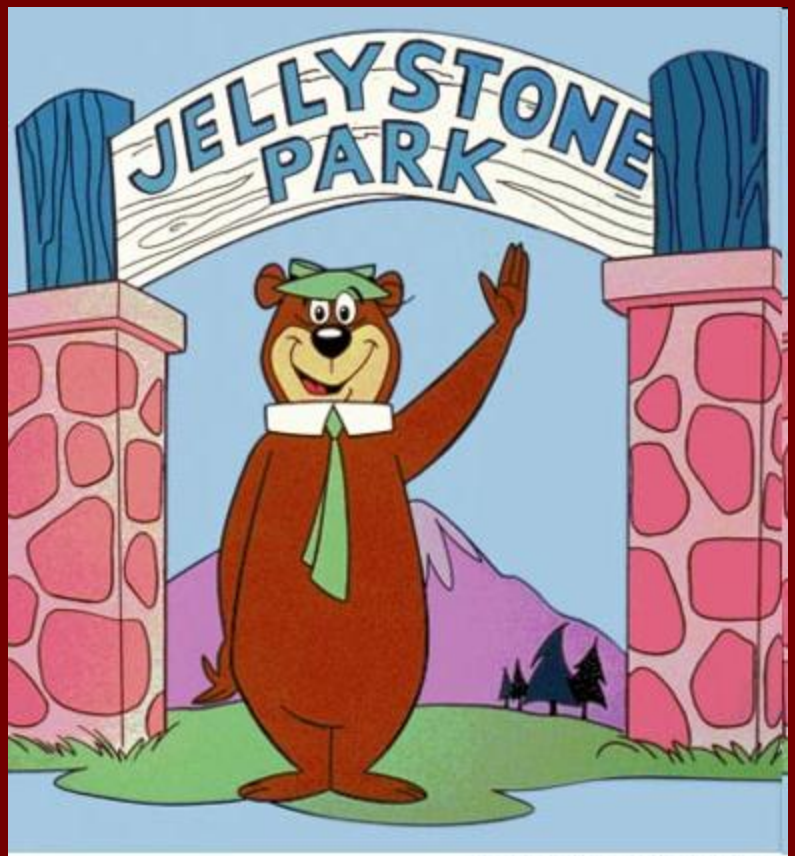
Stock Prices and Inflation

Goals

- Understand inflation, deflation, and consumer price index.
- Use consumer price index to calculate rate of change and changes in price.

Bear Market

- Period of time when most stocks decrease in price.



Hey There, It's a Yogi-Bear-A-Thon!

Bull Market

- Period of time when most stocks increase in price.

Inflation

- A general increase in prices.

Deflation

- A general decrease in prices.

Consumer Price Index - CPI

- Economic yardstick that helps judge the changes in the buying power of the US dollar.
- CPI is used to measure inflation and deflation.

Rule of proportions

$$\text{If } \frac{a}{b} = \frac{c}{d}, \text{ then } ad = bc$$

- Algebra Review

Example 1

- Use the CPI table on pg 389 to compute the rate of change of CPI (all items) from 1985 to 1990.

Example 2

- Use the CPI table on pg 389 to compute the rate of change of CPI (shelter) from 1970 to 1991.

Example 3

- In 1980, I bought 20,000 dollars worth of stuff. How much would you need to in 1992 to buy the same things?

- In 1985, I had 10000 in medical expenses. How much would those same medical expenses cost in 1991?

HW

- Pg 396
- EYS 1-11

Section 8 – 4 cont.

Stock Prices and Inflation

Exponential Regression

- Y=ab^x
- Stat -> Calc
- 0:ExpReg

- If the r value is closer to 1 then when we did linear regression, then an exponential curve fits the data better and might yield a better prediction of future values.

Example

- Use the data from 8-3, page.386
- Find the Curve that fits the data
- Is exp reg better than lin reg?

Expected Value

$$E = a_1 p_1 + a_2 p_2$$

Probability of inflation + probability of deflation = 1

Example

- If bob knows that there is a 2% chance that deflation occurs over a 3 year period and if this happens his mutual fund will drop from $10,000 to $7,500 and he also knows that if inflation is present his account will be valued at $13,500. What can he expect the value of his account to be in 3 years?

Homework

- P.395 TYS #1-8
- P.396 EYS #12-18