Econometrics Homework.

2.12 Table 2-9 gives data on the Consumer Price Index (CPI) for all items (1982-1984=100) and the Standard & Poor’s (S&P) index of 500 common stock prices (base of index: 1941-1943=10). Complete letters a through e in the questions that follow the table.

**Table 2-9** CONSUMER PRICE INDEX (CPI) AND S&P 500 INDEX (S&P), UNITED STATES, 1978-1989

|  |  |  |
| --- | --- | --- |
| **Year** | **CPI** | **S&P** |
| 1978 | 65.2 | 96.02 |
| 1979 | 72.6 | 103.01 |
| 1980 | 82.4 | 118.78 |
| 1981 | 90.9 | 128.05 |
| 1982 | 96.5 | 119.71 |
| 1983 | 99.6 | 160.41 |
| 1984 | 103.9 | 160.46 |
| 1985 | 107.6 | 186.84 |
| 1986 | 109.6 | 236.34 |
| 1987 | 113.6 | 286.83 |
| 1988 | 118.3 | 265.79 |
| 1989 | 124 | 322.84 |

1. Plot the data on a scattergram with the S&P index on the vertical axis and CPI on the horizontal axis.
2. What can you say about the relationship between the two indexes? What does economic theory have to say about this relationship?
3. Consider the following regression model:

= + +

Use the method of least squares to estimate this equation from the preceding data and

interpret your results.

1. Do the results obtained in part c make economic sense?
2. Do you know why the S&P index dropped in 1988?