

Problem 8.2 The following data show the real price of butter and real incomes, to supplement the data in Problem 7.2 (see page 253).

Year	Price of butter	Real income	Year	Price of butter	Real income
1970	105.5	70.3	1980	119.2	92.1
1971	130.9	71.1	1981	114.2	91.4
1972	131.9	77.1	1982	114.5	90.9
1973	99.5	82.1	1983	110.0	93.3
1974	89.6	81.5	1984	107.9	96.8
1975	92.1	81.9	1985	100.0	100.0
1976	109.1	81.7	1986	104.2	104.5
1977	118.2	79.9	1987	99.8	108.1
1978	123.4	85.8	1988	100.2	114.6
1979	130.6	90.7			

- Estimate a multiple regression model of the demand for margarine. Do the coefficients have the expected signs?
- Test the significance of the individual coefficients and of the regression as a whole.
- Should the model be simplified?
- Calculate the elasticity of demand. How does it differ from your earlier answer?

Problem 8.4 Given the following data for 1989 and 1990:

Year	Price of margarine	Price of butter	Real income
1989	79.3	104.3	120.2
1990	79.3	97.0	122.7

- Predict the levels of margarine consumption in the two years.
- The actual values of consumption for the two years were 3.47 and 3.19. How accurate are your forecasts?