

$$\frac{\partial(\text{unit cost})}{\partial(\text{out-of-pocket share})} = (\text{unit cost}) * \hat{\beta}.$$

The average unit drug costs of the first three samples are very close (\$.289, \$.300 and \$.315, respectively). The coefficient is estimated to be -0.350, -0.343 and -0.342 for Samples I, II and III, respectively. These coefficients are equal to the percentage change in the unit cost that results from a change in the out-of-pocket share. The estimates are similar in magnitude, and all are negative and highly significant.¹⁸ These estimates indicate that as the share of a prescription that is paid out –of pocket increases, the unit cost falls. This finding supports the explanation that individuals who pay a high percentage of a drug’s cost search for lower prices.

Since the results are very close, and since Sample III is probably overly truncated, in the rest of the discussion in this section we will concentrate on Sample II. In Sample II, there are 247 drugs ranging from 28 to 2,059 observations per drug.¹⁹ The most frequently prescribed drug in the sample is Furosemide, a diuretic. The coefficient is estimated to be -0.343 in Sample II. The effect at the average of the unit cost variable is thus -0.103 (-0.343*\$0.30). This implies that if the unit cost of a drug is 30.1 cents per milligram (mg), then a 10 percent increase in out-of-pocket share will, on average, reduce the per unit cost by 1.03 cents. Similarly, for a less-expensive drug, for example, with a price per milligram of five cents and a more-expensive drug with a unit cost of one dollar, such an increase in cost sharing will save 0.17 cents (-0.343*\$0.05) and 3.43 cents (-0.343*\$1.00), respectively.

The sample consists of a wide range of 247 drugs that differ in many respects. Some of them are heavily prescribed (in terms of total prescriptions in the sample or in terms of the average prescription per patient). The average cost of some drugs exceeds one dollar per milligram, while some others cost less than one tenth of a cent. Table III provides a more in-depth look at how these factors may affect the marginal effect estimates. We first divide the

TABLE II

Parameter Estimates of Model (1) (pooled regressions)

Sample	Number of observations	Number of drugs	Mean of unit cost	Mean of Out-of-pocket share	Coefficient	t-statistic	Marginal effect at mean
I	69,654	247	.289	.684	-.350	-40.285	-.101
II	59,150	247	.300	.758	-.343	-35.321	-.103
III	50,727	246	.315	.845	-.342	-27.282	-.108

Note: An overall fit of model (1) with many dummy variables (R^2 or adjusted R^2) is not informative, hence omitted from the table. Sample I includes all usable observations; Sample II excludes observations in which the out-of-pocket spending is a multiple of five; Sample III excludes all integer out-of-pocket expenditures. All three samples exclude drugs with fewer than 100 prescriptions.