real price alternatives, for once, but because of the priority in appearance of the higher priced drugs, and their intensive advertising, sales seem to be directly related to the height of daily average cost.

The Subcommittee staff computed the estimated production cost for one thousand 500-milligram tolbutamide tablets (twenty bottles of fifty each) on the basis of bulk powder transactions plus contract tableting and bottling charges, as in the case of prednisone. The production cost estimate is \$6.86; the royalty $(7\frac{1}{2} \text{ per cent of the }$ selling price) is \$6.24. The wholesale price of twenty bottles is \$83.40 and the retail price is \$139.00 Upjohn's production cost is therefore 8 per cent of the wholesale price; the production cost plus the royalty brings Upjohn's total estimated cost of production and royalties to 15.5 per cent of the wholesale price and to 10.6 per cent of the retail price. 55 Production cost estimates for the other two drugs are not available. The only bid on a Military Medical Supply Agency contract that is available for any such drug is Upjohn's successful bid of \$4.00 for 18,432 bottles of fifty 500-milligram tablets. Since the wholesale cost for one bottle is \$4.17, it can be seen that in the absence of lower-priced competition from smaller firms, a large order from the government, with its attendant cost savings, could be obtained at only a 4 per cent quantity discount.⁵⁶

C. Tranquilizers

Price competition among tranquilizers varies with the type of tranquilizer. There are two types, the 'potent' type used chiefly in mental institutions, and the 'mild' type used for non-hospitalized patients troubled with anxiety.⁵⁷ In the potent group, the first drugs to be introduced were chlorpromazine and reserpine in 1954. Both drugs were priced at wholesale at \$3.03 per bottle of fifty tablets. Later during the year CIBA introduced its brand of reserpine at a price for fifty tablets 25 per cent below its existing competitors for that drug (Squibb and Riker), \$2.25. When Smith, Kline and French introduced prochlorperazine in 1956, they priced it at \$3.03 per fifty tablets, the same price they charged for their chlorpromazine. When Wyeth introduced promazine hydrochloride in 1957, it did so at a price of \$3.00 for a bottle of fifty tablets.⁵⁸ In an interesting

 ⁵⁵ Report, op. cit., p. 20.
 ⁵⁶ Hearings, op. cit., Part 21, p. 11551.

⁵⁷ As is true in most drug categories, much substitution among drugs is possible in most disease groups treated by tranquilizers. A 1959 study by the Pharmaceutical Manufacturers Association shows that all seven of the major tranquilizers (both mild and potent) are prescribed in all five major disease groups requiring such therapy, ibid., Part 10 P. 10827.

Part 19, p. 10827.

58 Ibid., Part 16, p. 8887.