UC SANTA BARBARA

THE Current

November 23, 2015
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The Economics of Drug Pricing

When William Comanor was casting about for a thesis in the fall of 1961 to complete his Ph.D. in economics at Harvard University, a professor suggested he look into the pharmaceutical industry. Congress, at the time, had been holding hearings on drug manufacturers for more than a year.

“There were 13,000 pages of hearing transcripts,” Comanor recalled. “I did something I have never done before or since: I sat down and read them all. That’s what graduate students do.”

It took him about three months to get through the transcripts, but he eventually wrote his thesis on what was then unexplored territory — pharmaceutical economics — and over time a new field was born. His landmark paper a year later, “Research and Competitive Product Differentiation in the Pharmaceutical Industry in the United States” (Economica, 1964), is considered by some as the genesis of pharmaceutical economics.

“What happened is the field grew up around me so that now it’s distinct from industrial economics; it stands at the intersection of industrial and health economics,” he said. “It’s a more distinct body of work than was the case when I started.”

Today Comanor is a professor of economics at UC Santa Barbara and a professor of health policy and management at UCLA. His contributions to pharmaceutical economics are considered so fundamental to the field that he was honored recently

at the William S. Comanor Commemorative Conference on Pharmaceutical Economics at the University of British Columbia in Vancouver. In addition, the International Journal of the Economics of Business published a special issue "Honoring William S. Comanor and 50 Years of Pharmaceutical Economics." It included a collection of eight research papers on the subject.

"What I have done for many years is go around the world and try to explain why these little pills cost so much," Comanor said. "That's what I do."

With his standing in pharmaceutical economics, Comanor has a unique perspective on the recent rash of news and protests about the dramatic rise in some drug prices. Despite the outrage over those highly publicized cases, Comanor said the drug market is behaving within predictable norms in pharmaceutical economics.

What has complicated the discussion, he noted, is that there are *two* pharmaceutical industries. "There's the branded industry and the generic industry, and for the most part they're comprised of different firms with different strategies and different trade associations and different sets of objectives," he said.

To understand the branded industry, it helps to review price-setting strategies. As he and co-author Z. John Lu, a former doctoral at UCSB, laid out in "Strategic Pricing of New Pharmaceuticals" (Review of Economics and Statistics, 1998), the key determinant in setting the price of a new drug is its therapeutic value. In the branded industry, drugs that represent a major therapeutic advance typically command higher prices.

Congress in effect created the modern generic drug industry in 1984 with the Hatch-Waxman Act, Comanor continued. That legislation made it possible for the U.S. Food and Drug Administration to approve biologically equivalent pharmaceuticals. Currently, generics supply nearly 80 percent of all prescriptions filled in the United States, he noted.

"What is striking, which is not well known, is that although the U.S. branded prices are among the highest in the world, on average, generic prices in the U.S. are the lowest in the world," Comanor said. "That's not well publicized but the evidence is there."

The case of Turing Pharmaceuticals, while sensational, still falls within the norms of pharmaceutical economics, Comanor noted. The drug Daraprim (pyrimethamine)

treats a serous condition, toxoplasmosis, but it strikes just 2,000 people a year, he said, making it “effectively a natural monopoly.” Daraprim is a 62-year-old generic, but still has little competition. As a result, Turing could raise its price from $13.50 a tablet to $750. “Those prices are more akin to branded products, which are determined more by value than cost,” Comanor explained.

The other significant factor in the Turing case, he said, is that “the fellow who bought it paid $55 million for the rights to the drug,” Comanor said. “And if he paid $55 million, he clearly couldn’t keep it at the old price; he’d lose his shirt. The revenues on that drug are something on the order of $3 million a year, and nobody pays $55 million for an asset that throws off revenue of $3 million a year. He did that because he saw the opportunity to raise its price. And as it’s a natural monopoly, he was not likely to face serious competition.”

The Turing case and others have generated widespread calls for new regulations on drug prices. Comanor, however, called that highly unlikely. Other countries have lower prices for branded drugs, he noted, but that’s the result of the governments’ position as the sole negotiator of drug prices.

“They don’t regulate prices; they have a single buyer,” he explained. “The single buyer buys the drugs. They are willing to pay only so much for a drug, and thereby function somewhat similar to our insurance companies. I don’t see public utility-type regulation being applied here. First of all, it’s not politically feasible, and second, it’s not administratively feasible.”

And while U.S. branded drug prices are indisputably high, Americans rarely pay full price for their prescriptions, Comanor observed. Roughly 75 percent of all drugs are paid by third parties, such as insurance companies and Medicaid. Most people pay only the co-pay and give little thought to how much the third party paid the drug company. “The only thing most consumers care about is the co-pay, which I think should be emphasized,” he said.

To be sure, Comanor noted, “There remains some consumers who are not covered by government or private payers. They are charged the cash price which can be quite high. Our first goal,’’ he suggested, “is that there should be as few people as possible in those circumstances.”

About UC Santa Barbara

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