

nose tackle for the Chicago Bears. Leval worked security for Marriott. He was

extremely polite, and he told me that I would be leaving the hotel. Immediately.

So there I was, standing in a biting breeze on Michigan Avenue, wondering what it is about prices that makes otherwise reasonable businesspeople so paranoid. One factor is strategic secrecy: Prices are so important to business that most executives don't want to disclose what they know. But the bigger factor, I came to appreciate, is fear of embarrassment: Most executives are surprisingly in the dark when it comes to setting prices. They guess; they say a prayer; they cross their fingers. They are afraid to disclose what they *don't know*.

Kent Monroe, a professor at the University of Illinois at Urbana-Champaign, is one of the deans of pricing. He's been teaching the subject for nearly 37 years, and he knows that sloppy thinking about pricing is widespread across the U.S. economy. Both consumers and businesspeople assume that price has everything to do with cost. *Wrong.* "You have to know the cost so that you can understand the profitability implications of price," says Monroe, "but not for the purpose of setting price." Businesspeople assume that if they are in a competitive situation, and prices drop, they have to match. *Wrong.* "The natural tendency to match is foolish," he says. Executives who are devoted to using "data" in all kinds of other arenas think it's perfectly acceptable to set prices based on "history" or "experience" or "instinct." *Wrong again.*

Monroe tells a pricing story that shows how even the simplest situation can confound accepted wisdom about prices. "A company is making two versions of the same product," says Monroe. "One has a little more gold and foil on it, but they're essentially the same. One is \$14.95; the other is \$18.95." Not surprisingly, the \$14.95 item is selling better. It's also the lower-profit product.

"Then a competitor comes in with a third product. Again, it's essentially the same thing, but a fancier version. And it's much higher priced: \$34.95."

For our original company, asks Monroe, "what becomes the best-seller? Why, the 18.95 version, of course."

It's a small story, but it's true. In fact, you can *feel* how right Monroe is. "The point," he says, "is that economic theory says that can't happen. But it does."

The neat curves and crisp laws of supply and demand, elasticity, and rational behavior that everyone learns in microeconomics class don't work in the real world.

Business is at the start of a new era of pricing. This era is being shaped by a new set of insights into business strategy and human behavior, and these insights are turbocharged with software, mathematics, and rapid experimentation. The result is what might be called "scientific pricing." There is even a blossoming industry of a dozen companies that offer scientific-pricing services.

Changes in pricing will alter every part of the economy. The way that business gets done will change, and companies will flourish or be crushed based in part on their ability to grasp and master the new science of pricing. Among those already using the new techniques are Best Buy, DHL, Ford Motor Co., the Home Depot, JC Penney, Safeway, Saks, Staples, UPS, and Winn-Dixie. General Electric, perhaps taking Jack Welch's warnings to heart, is not only working with at least two different pricing companies -- it has also invested in one.

PRICE CHECK (I): BEFORE THE BAR CODE

The oldest records of prices ever found are clay tablets with pictographic symbols found in a town known as Uruk, in what was ancient Sumer and what is now southern Iraq. These price records are from 3300 BC -- they've survived 5,300 years. The documents -- records of payment for barley and wheat, for sheep, and for beer -- are really receipts. "Uruk was a large city, at a minimum 40,000 people," says UCLA professor Robert Englund, one of the few experts on the Uruk documents. "So some of the quantities are very high -- hundreds of thousands of pounds of barley, for instance."

But here's the really remarkable thing. The earliest Uruk tablets aren't just the oldest pricing records ever found. They are the oldest examples of human *writing* yet discovered. In other words, when humans first took stylus to wet clay, the first thing that they were compelled to record was . . . prices.

INSIDE A PERMANENT PRICE WAR: "YOU'RE ONLY AS SMART AS YOUR DUMBEST COMPETITOR"

If there are pioneers in the world of scientific pricing, they are the airlines. In the 25 years since deregulation, the airlines have honed an obsession with prices -- their own and each other's -- that is legendary. We all live with the seemingly bizarre inconsistencies that result, such as two people on the same plane, sitting across the aisle from each other, one of whom paid \$290 to fly from New York to Miami, one of whom paid \$1,290. We also benefit from the pricing obsession: With just a little bit of planning, you can fly for the same price today that you did in 1980.

The airlines know full well that we are puzzled by the frantic pricing and repricing that they do -- puzzled, that is, when we aren't infuriated. Jim Compton, senior vice president of pricing and revenue management at Continental Airlines, not only wasn't scared of going to jail if he talked about