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Why Surge Prices Make Us So Mad: What Springsteen, Home Depot and a Nobel Winner Know

By Neil Irwin

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When Bruce Springsteen decided to do a run of shows at a Broadway theater with fewer than a thousand seats, he appeared to reject the laws of economics — or at least what would seem to be in his financial best interest.

He limited ticket prices to between $75 and $850 and has been allocating them through a lottery that includes identity verification. His goal was to prevent scalping. Yet not everyone who sought tickets got them at those prices. The tickets that have leaked onto the open market on StubHub ranged in one recent search from $1,200 to $9,999.

It sure looks as if Mr. Springsteen left a great deal of money on the table and impeded the laws of the marketplace. After all, some people got tickets for $75 for which others were willing to pay four figures.

But the strategy may be less irrational than the raw numbers suggest. And understanding the hidden logic behind concert pricing — or how Home Depot responds to a hurricane, or even how your neighborhood restaurant handles the Valentine's Day crunch — can provide a guide to solving some of society's biggest problems while satisfying people's deep need for a sense of fairness.

Understanding this logic can also win you a Nobel in economics. At least, it did recently for the University of Chicago economist Richard H. Thaler, who was honored for work that includes study of what constitutes fairness in markets. He has shown that the simplistic Economics 101 version of how markets work — in which a seller raises prices however much it takes to match demand — can be inefficient, or offend people's moral sensibilities, or both.

Technology is making "variable" or "dynamic" pricing — the same strategies that ensure a seat on an airplane, a hotel room or an Uber car are almost always available if you're willing to pay the price — more plausible in areas with huge social consequences.

Dynamic pricing of electricity could help bring down pollution, reduce energy costs and make renewable energy more viable. Constantly adjusting prices for access to highways and congested downtowns could make traffic jams, with all the resulting wasted time and excess emissions, a thing of the past. Any sector where supplies tend to be fixed but demand fluctuates — the water supply, health care — would seem like prime candidates for variable pricing.

But technologists, entrepreneurs and regulators who would go down this path first need to learn a few lessons from Mr. Thaler — and Mr. Springsteen.

"A good rule of thumb is we shouldn't impose a set of rules that will create moral outrage, even if that moral outrage seems stupid to economists," Mr. Thaler said.

As it turns out, when you look at when and how dynamic pricing provokes outrage, you detect some patterns — and a guidebook on getting some of the benefits of economic efficiency without fueling outrage that dooms the entire project.

Musicians taking the long view

The underpricing of popular concert tickets is nothing new. In an earlier era, this was visible in long lines of fans camping out to buy them. Now, the gap between fans' willingness to pay and the official price drives online ticket marketplaces, and a constant cat-and-mouse game pitting concert promoters against ticket brokers. And Mr. Springsteen's show is grappling with the same challenge that "Hamilton," and other hot tickets on Broadway have faced: limited seating, seemingly limitless demand.

Research by the economists Marie Connolly of the University of Quebec and Alan Krueger of Princeton based on a sample of major concerts in 2006 estimated that artists and promoters left about 5 percent of potential income (or around $200 million) on the table by underpricing tickets relative to the market rate.

Some in the music business see this as the height of irrationality. "Most concert tickets are not priced to market," said Marc Geiger, a leading agent to musicians with WME Entertainment. He described showing an artist that the front-row concert tickets, priced flat at $125, were selling for $900 to $1,300 on the secondary market.

"I say, please, let me take some of those and price them at market," Mr. Geiger said at the Music Industry Research Association conference in August in Los Angeles. Confoundingly, he said, the same artist might chafe at discounting the back rows of an arena to ensure a sellout, for fear of appearing to give away tickets too cheaply.

"We are still coming out of the era of rock 'n' roll socialism," he said. "I think the concert industry is still in a bit of head-in-the-sand economics."

But given that the apparent underpricing has been so widespread and so persistent, is it possible the strategy is more rational than it seems? That's what Ms. Connolly and Mr. Krueger argue. For artists, no one show exists in a vacuum. And the things that might maximize revenue for any given night might not be the elements that matter in the longer term in developing devoted fans.

There's the issue of fairness, of course. Fans don't want to think their favorite artist is gouging. And the entire concert experience may be better if raucous superfans are in the front rows, rather than whoever is able to pay four figures for a ticket. The goal is to create an experience that makes everyone leave with a warm glow, their fandom of that artist that much deeper.

If artists did raise prices sharply, there's a risk they would need to discount prices later to fill up the arena. Research shows that when people find out they overpaid for something, they buy less in the future.

So one view of the Springsteen approach is that it is economically irrational. But another is that it is part of a long-term relationship between a performer and his fans.

That might be a lesson for the other industries where variable pricing could make a lot of sense.

Fairness helps people keep cool

Those scorching days of midsummer, when every air-conditioner in a hundred-mile radius is cranking at full blast, are hard on utilities.

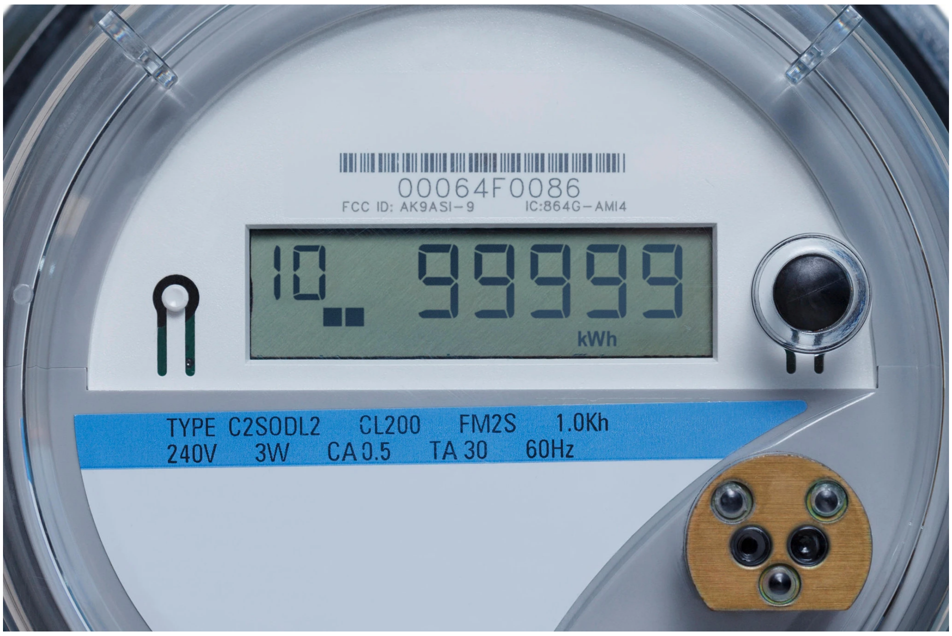

Illustration by Eden Weingart; Photo Michael Burrell/Alamy

Most of the time, they can meet electricity demand with modern, efficient natural gas power plants that keep power flowing consistently at reasonable cost and with moderate carbon emissions, combined with nuclear and renewable energy plants that are pretty much always operating.

But on brutally hot days (and perhaps a few bitter cold days in the winter, too), things get trickier. To keep up with demand, utilities have to turn to old, expensive, dirty coal and oil plants. Some power plants maintain a crew year-round in order to be able to generate electricity only a few days during peak demand.

As a result, the cost of energy production can be four or five times as high on a high-demand day as on a low-demand day.

Yet the way most Americans buy electricity, that is all invisible. Utilities typically charge a single price per kilowatt-hour of electricity no matter when it was used.

If the price of electricity varied from hour to hour as airline tickets do, it might create incentives on high-demand days for consumers to set their air-conditioners a few degrees higher or to postpone running their washer and dryer till the overnight hours. The old, inefficient plants could be mothballed, and air pollution would decrease.

It sounds easy, an elegant use of markets to increase efficiency. And in some limited-scale experiments, it's already happening. In Illinois Elevate Energy says that it has saved 28,000 customers 15 percent on their electricity with a system of variable electricity pricing through two utilities. In normal times, energy might cost 3 or 4 cents, while on peak days it can surge to 14 cents.

But the people working on such programs are also aware of some of the problems that could emerge if they aren't careful. And they come back to some of the same notions of fairness that underpin the concert pricing conundrum.

Affluent people could easily decide it's just not worth the effort to adapt their energy consumption to the spot price, making the programs a penalty for the poor. And some people might have trouble following constantly changing prices or knowing how to trim their usage in response. Woe betide the utility executive facing customers who are angry upon suddenly receiving a $2,000 electricity bill after a heat wave.

It could get worse. If a poor older person turned off air-conditioning during a heat wave to avoid the price spike and died of heat stroke, it would be a human tragedy. People on supplemental oxygen can't turn the machines off to save money.

"I'm a big believer that you don't just give people a raw price signal, but provide them with support and financing to invest in the infrastructure to respond appropriately," said Daniel Esty, a Yale environmental law professor and former commissioner of Connecticut's energy and environmental protection agency. "Even better over time would be a system where people don't have to think about it, where smart appliances are connected to a smart grid that would enable them to do their part in a kind of invisible-hand sort of way."

The Illinois program has included email and text alerts to tell people when surge pricing is in effect, and some customers are using technology involving smart thermostats so that their temperature setting adjusts automatically. "This doesn't have to be something people need to monitor every day to be successful," said Sarah Gulezian, senior manager of dynamic pricing programs at Elevate Energy.

Moreover, it might prove possible to create pricing structures that guarantee consumers won't pay more than they would have under traditional pricing, essentially seizing the benefits of dynamic pricing without anyone getting an unpleasant risk of sticker shock. That's because most households see savings under the plans, and only a handful see their prices rise.

Utilities and regulators, in other words, have to think a little like Mr. Springsteen: It's not just about maximizing the efficiency of the energy market on any one day, just as the Boss isn't trying to maximize his revenue from any one concert. Rather, it's about maintaining a relationship in which people do not feel like they have been exploited.

Some short-term inefficiency can buy long-term viability. And that's never truer than when disaster strikes, whether a heat wave, a blizzard or a hurricane barreling toward the most populous area of Florida.

Home Depot and a hurricane

As Hurricane Irma did just that in early September, about 150 Home Depot officials gathered in the company's Atlanta headquarters in an auditorium and a series of conference rooms that became the company's temporary command center. Logistics experts, store operations officials, corporate security staffers, human resources employees, lawyers and representatives of major suppliers were all there, in what is now a well-rehearsed exercise.

Illustration by Eden Weingart

The first thing they did was direct all prices to be frozen in areas likely to be affected by the storm. There is no surge pricing at Home Depot stores after a disaster, in both a longstanding corporate policy and a matter of law in many states.

But the company doesn't stop with that. All those logistics people and other staffers are there to ensure that the surge in demand after a disaster is matched with a higher supply of the goods people need.

As hurricane season approaches, dedicated warehouses are stocked with goods that will be needed if a major storm hits, according to the company's director of corporate communications, Stephen Holmes. And that's why, as soon as Irma passed the Miami area and the major highways were confirmed to be passable, a convoy of 41 tractor-trailers full of generators, plywood, chain saws and similar items trekked from Georgia to South Florida, escorted by the police.

The key is responding to a desperate situation not by raising prices, but also not by being content with shortages of badly needed goods. Rather, emergencies are an occasion to increase supply, even if it means incurring big logistical costs to do so.

That could have a lot of implications, including for your morning commute.

Traffic-choked monster

The Capital Beltway that encircles Washington and its near suburbs is more than just a metaphor for the alleged insularity of the people who live within it. It is often a traffic-choked monster that ruins the commutes of many who must use it.

But for a 14-mile stretch, there is an out if you have the money. A parallel toll road allows those willing to pay — 20 cents a mile during slow periods, $1 a mile during a typical rush hour, more during times of extreme traffic — to ensure it is never clogged.

The toll road, a joint venture between Virginia's transportation department and the Australian company Transurban, is an example of dynamic pricing as a tool to reduce traffic. Different in approach — but with the same ultimate goal — is congestion pricing, a fee on cars and trucks to enter a dense urban area. Congestion pricing has gone into effect in Stockholm and London but was rejected for New York in 2008 (Gov. Andrew Cuomo of New York has indicated new openness to the idea this year).

In these areas, there is too much demand for space on the roads and too little supply of road, and each of these strategies tries to use pricing to bring supply and demand into balance. But paying variable prices for a good that has previously been free (most roads) or charged at some fixed rate (traditional toll roads) raises all sorts of issues.

This new approach to modulating traffic may become more acceptable to voters when it is part of an increase in supply.

If variable tolls or congestion charges are merely about pricing some people out of the market and letting rich people avoid the nuisance of traffic, they probably won't go over so well. But if they are part of creating more supply of road, ensuring more people over all can get where they want to go — and if people are frequently reminded of that — the measures may go down easier.

The Transurban deal with Virginia essentially makes private money available for additional road capacity — the express lanes on the Capital Beltway were built from scratch. Its existence also serves to reduce the traffic on the traditional lanes.

Governor Cuomo has pitched a New York congestion fee as a funding stream to improve and expand New York's rail system. If that happens, it could mean more capacity to get people in and out of the city.

Another lesson from these pricing experiments is that they tend to be most resisted when they are new. When Stockholm experimented with a charge to enter the city center in 2006, it was highly controversial, with people in suburban towns especially viewing it as an unfair tax.

But since being made permanent in 2007, opinion has shifted, said Maria Borjesson, a transportation economist at the KTH Royal Institute of Technology.

"I think an important lesson is that the conception of what is fair changes," she said. "Before the charge, the discussion was of how unfair it was and how it would be hardest for low-income people. Now when we do surveys, we find that people think it is unfair if the people who use the streets and pollute and increase congestion don't pay. We've seen this everywhere that has implemented congestion charges, that public support increases afterward."

A lesson for Uber, and all of us

People's perceptions of what is fair and just are not set in stone; they evolve over time. But companies looking to use variable pricing have to be cognizant of how important it is to respect those perceptions.

Uber has often been cast as the embodiment of excessive use of surge pricing. For example, in 2013, Jessica Seinfeld, the cookbook author and wife of the comedian Jerry Seinfeld, was outraged to face a $415 charge for a short ride in a snowstorm, and told her Instagram followers all about it. Since then, Uber has taken a range of actions to try to keep the benefits of variable pricing while reducing the outrage.

It has adopted a quicker trigger finger for eliminating surge pricing entirely in emergency situations, for one thing. When Mexico City had a major earthquake on Sept. 19, an operations worker at the company's local headquarters turned off surge pricing, even while the building was still shaking.

"The fact that one of our teammates had the presence of mind to turn off surge in that chaotic moment, I think, reflects the deep responsibility we all feel toward our fellow citizens and the cities we serve," said Rodrigo Arévalo, general manager for Uber in Latin America.

The company also cut back on passenger complaints by giving a clear estimate of the price of a ride *before* a person books a car, a practice that began last year. It turns out it's easier to decide whether it's worth $30 for a car ride and act accordingly than it is to be told that a surge multiplier of 2.5 times is in place and that the normal rate would probably come to about $12.

Restaurants have long known that charging a fee for a reservation offends people's sensibilities — but that on a big night like New Year's Eve you can require everyone to eat an expensive fixed-price menu with lobster and filet. Diners will happily pay a surge price without thinking of it as such.

What the successful examples of variable pricing have in common is that they treat customers' desire for fairness not as some irrational rejection of economic logic to be scoffed at, but something fundamental, hard-wired into their view of the world. It is a reality that has to be respected and understood, whether you're setting the price for a highway toll, a kilowatt of power on a hot day, or a generator after a hurricane.

"If you treat people in a way they think is unfair, then it will come back and bite you," Mr. Thaler said. And it doesn't take a Nobel to understand that.

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