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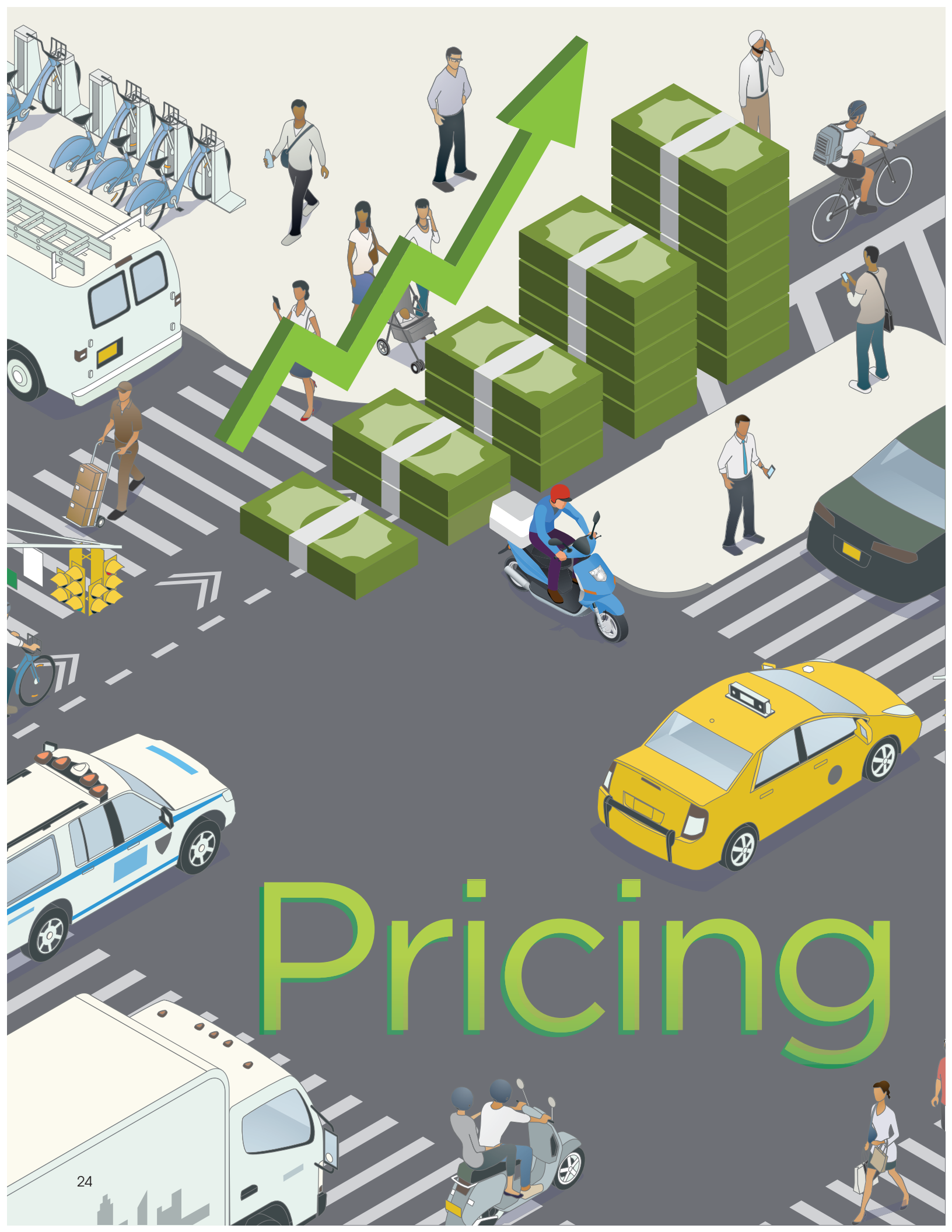


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Pricing



By Donald Shoup

PARKED CARS HAVE COLONIZED CITY STREETS for so long they seem to own the curb lanes. Decolonizing is underway, however, because new demands are overcrowding the curb. E-commerce deliveries need truck-loading zones. Uber and Lyft need passenger-loading zones. Traffic congestion has increased the need for dedicated bus lanes. Cyclists want safe bike lanes, and pedestrians want wide sidewalks. The curb is the new urban frontier, and parking is not always its most productive use.

How can cities measure curb productivity? One way is to count how many people the curb serves. A study in Manhattan in New York City, N.Y., compared a bike station on one side of Broadway with three parking spaces occupying the same length of curb on the other side of the street. In one hour, 200 people arrived at or departed from the bike station, while only 11 people arrived at or departed from the parking spaces. If we measure productivity by the number of people served, the bike station was 18 times more productive than the parking spaces.

Similarly, a study of Uber and Lyft vehicles on Santa Monica Boulevard in West Hollywood, Calif., found that loading zones served four times more passengers per hour than the same length of curb parking did. Because parked cars filled the curb lane most of the time, Uber and Lyft had to pick up and drop off 41 percent of their passengers in a travel lane, which is dangerous. Double-parked cars that stopped to load or unload passengers blocked a travel lane 65 percent of the time.

Turning a few curb spaces into bike stations or loading zones may reduce traffic congestion

and serve more people, but change is difficult for two reasons:

- Measuring curb productivity is difficult.
- Cities lose revenue when they convert metered parking to other uses.

Cities can address both issues by charging the right prices for every use of the curb.

The Right Price for Curb Parking

What is the right price for curb parking? The only way to know is to look at the results. The right price will yield one or two open curb spaces on every block so drivers will not have to cruise for parking. This is the Goldilocks principle of parking prices—not too high, not too low, but just right. Right prices will eliminate the cruising that congests traffic, wastes drivers' time, exhausts nonrenewable resources, endangers pedestrians and cyclists, and pollutes the air.

Planners cannot reliably predict the right price for parking on each block at each time of day, but they can use a simple trial-and-error process to adjust prices in response to observed occupancy.

the Curb

Taking the lottery feel out of curb use by finding the right prices.

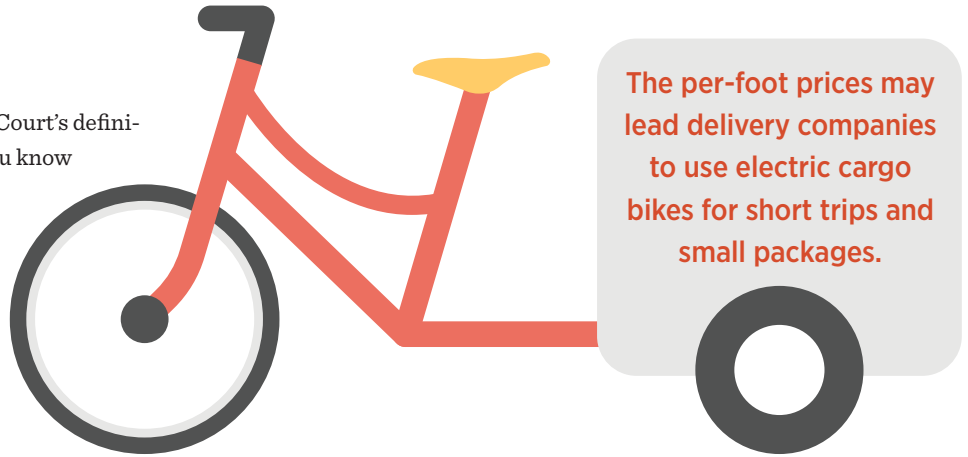
Like the U.S. Supreme Court's definition of pornography, you know the right price for curbside parking when you see it—the block has one or two open spaces.

One or two open spaces on every block will ensure that curbside parking is both well-used (most spaces are occupied) and readily available (a few spaces are open). Baltimore, Md.; Boston, Mass.; Los Angeles, Calif.; San Francisco, Calif.; Seattle, Wash.; Washington, D.C.; and several other cities have begun to price parking by demand so finding a space no longer resembles winning the lottery.

Surprisingly, more prices fell than rose after San Francisco began varying curbside prices to manage demand. During the first two years of the city's program, prices declined sharply in the morning and increased moderately in the midday and afternoon. On many blocks, the price fell to \$0.25 an hour in the morning from the previous price of \$2 an hour all day. If prices remain the same all day, they will probably be too high at some times and too low at others.

Motorists may argue that parking spaces are "priceless," but anything is priceless until it is sold. Demand-based prices for curbside parking will show where parking is valuable and where it isn't. These prices will also suggest the times and places where curbside spaces might shift from privately owned cars to shared cars (such as Zipcar). Consider a block in a dense neighborhood with 200 residents and only 20 curbside spaces. Twenty shared cars will serve more residents more often than 20 privately owned cars can. The collective users of shared cars will probably outbid some private car owners for space at the curb.

To ensure equity in using prices to manage the curb, cities could give low-income residents a discount on curbside parking, just as they give discounts on electricity and water bills. If cities do subsidize curbside parking for low-income drivers, however, they should also give an equivalent subsidy to equally low-income residents who do not own a car and instead walk, bike, or ride public transit.



The per-foot prices may lead delivery companies to use electric cargo bikes for short trips and small packages.

To create political support for right-priced curbside parking, some cities have created parking benefit districts that dedicate the meter revenue to pay for added public services on the metered streets. Because everyone who lives or works in a parking benefit district can see the meter money at work improving their neighborhood, most residents will probably want Amazon, UPS, and FedEx to pay fair market prices for using the curb. Austin, Texas; Boston, Mass.; Houston, Texas; Los Angeles, Calif.; Mexico City, Mexico; Pasadena, Calif.; San Diego, Calif.; and several other cities have established parking benefit districts.

The Right Prices for Loading Zones and Other Curb Uses

Prices can also manage loading zones. The city can charge delivery vehicles for parking by the minute, with prices set to produce reliable curbside availability. Columbus, Ohio, is testing reservations for loading zones, with the initial price set at \$0.10 per minute at the curb. The city can later use variable prices to manage demand. Delivery companies pay for parking, but drivers save valuable time because they can quickly find a legal space.

Cities can also price loading zones according to the length of delivery vehicles. If a 50-foot-long truck pays five times more per minute than a 10-foot-long cargo bike, both will pay the same price per curb foot. The per-foot prices may lead delivery companies to use electric cargo bikes for short trips and small packages.

If cities measure the revenue per curb foot for each use, they can identify underperforming uses and rebalance the curb space to increase productivity and revenue. For example, converting some of the curb lane from low-value parking spaces to high-value loading

zones can increase the curb's productivity. Because most delivery trucks and ride-share vehicles spend short times at the curb, shifting only a few curb parking spaces to loading zones may satisfy the delivery demand on most blocks. Many trucks and ride-share vehicles paying a high price per minute for very short parking sessions can yield more revenue per curb foot than a few cars paying a low price for much longer sessions in the same space. Charging all users for time at the curb will produce not only a revenue stream but also a data stream that shows how the curb is being used.

Demand-based prices for curb parking can also show where the city might shift a curb parking lane to a bike or bus lane. If the price of parking is low, bike and bus lanes will cost little in lost meter revenue compared to the time and money savings on safer bikes and faster buses.

How Much Curb Space Are We Talking about?

How much land can cities convert from curb parking to more productive uses? Laid end-to-end, New York City's 3 million curb spaces would stretch almost half-way around the earth and cover about 17 square miles of land—13 times the size of Central Park and 6 percent of all land in the city.

Because 97 percent of New York's on-street parking is free, the subsidy is huge. If New York charged only \$5.50 per day per parking space (the price of one round trip on the city's subway), the city would earn \$6 billion a year in parking revenue. In comparison, New York's total farebox revenue from public transit was \$6.2 billion in 2018. Because many New York curb spaces are worth far more than \$5.50 a day, curb parking revenue could more than double the funds for public transit.

San Francisco has a similar story. Laid end-to-end, the city's 275,000 curb spaces would stretch longer than California's coastline. Combined into one piece of land, the curb spaces would cover Golden Gate Park. In a city famous for its high housing prices, cars park free in 90 percent of its curb spaces.

Conclusion

Demand-based pricing rules can depoliticize the curb. With pricing based on occupancy data, politicians cannot raise prices simply to gain revenue or reduce them

to please voters. The goal is to optimize occupancy, not revenue, and prices go down as well as up. Prices provide vital information about demand, and markets can perform some functions better than planners and politicians can.

The curb lane will not be used properly until it is priced properly. When it comes to managing the curb, cities can let prices inform the planning and spend the resulting revenue to pay for public services. Getting curb prices right will improve cities, the economy, the environment, and the planet. ♦



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Further Reading

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