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The Hidden Shortages of the Market Economy

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If you think shortages—in goods like toilet paper, meat, and masks—came in with the pandemic, think again.

Shortages are periods during which demand exceeds supply, and they're an inescapable feature of all markets, all the time.

When an investor bids up the price of Apple stock because none is available at current prices, that's a shortage. When a homeowner receives multiple bids for her home, that's a shortage. When there are "only three left in stock" on Amazon and four users click "buy," that, too, is a shortage.

We don't notice these quotidian shortages because sellers usually respond to them by raising prices. The price of Apple stock jumps, the home sells for more than it listed, and Amazon's dynamic pricing algorithms regret to inform you that "the prices of some items in your cart have changed."

But price increases don't make shortages go away. They just ration access to the shortage good to those who have the greatest willingness—which often means the greatest ability—to pay.

That's a problem, because ration pricing concentrates wealth in the hands of sellers. We know that because the prices sellers charge before a shortage manifests itself must be calculated to cover costs, otherwise sellers wouldn't quote those prices. When sellers go on to jack up prices in response to a shortage, they must therefore enjoy a windfall: profits in excess of what they need to be induced to bring their goods to market.

The pervasiveness of shortages, and the ration pricing that comes with them, makes markets fundamentally exploitative. But the only way to induce firms to engage in queue pricing may well be to embrace that ultimate progressive villain: God.

THE ALTERNATIVE OF THE QUEUE

The story about price increases that we learn in Econ 101, that price increases cover the cost of increasing production, doesn't apply to shortages, because during a shortage supply can't increase, as I explain in greater depth in the first part of this two-part series.

Instead, during a shortage, a seller has two options: to ration based on consumers' willingness to pay, by increasing prices until the quantity demanded equals the limited supply, or to ration based on the rule of first-come-first-served, by leaving prices untouched and just letting consumers queue until the good sells out.

Queuing is a lot more equitable than ration pricing, because whoever gets on line first gets the good at the low queue price, regardless of means. And because shortages are pervasive in markets, in a just world queuing would be a lot more familiar to us than it actually is.

In a just world, the dealer in Apple stock and the homeowner don't sell to the highest bidder, just the first bidder, or the friendliest bidder. And Amazon just tells you the item has sold out, instead of increasing the price.

But ration pricing is a lot more profitable.

IS PRICE STILL MORE EFFICIENT?

Once upon a time, economists could argue that ration pricing was the most efficient option, because queuing meant wasting time on long lines. But I argue in a forthcoming law review article that in the information age, that advantage is gone: today we queue virtually. It only takes a second to log in and book a reservation, place a preorder, or just click "submit" on a purchase. Or instead find that the good has sold out. The wait is gone.

Combine that with the fact that those who can afford to pay the most for a good aren't any more likely than those who happen to queue up first to be those who value the good the most, and it's clear that ration pricing is no more efficient than queue pricing, just a lot more profitable for sellers and burdensome for buyers.

Of course, it's possible that the rich might buy their way to the front of the line, making queuing equivalent to ration pricing. But no system is perfect. When people try to game ration pricing, we call it theft. And we trust in the criminal law to stop it.

Similarly, sellers prohibit gaming of their lines all the time. And Congress has their back there too, at least in the events context.

A DUALITY THEOREM

But doesn't ration pricing make markets efficient by ensuring that the maximum value that consumers place on a good is always accurately reflected in market prices? After all, if prices don't reflect demand, sellers won't know when it's profitable to enter markets, right?

Wrong. Because sellers get the same information from watching markets sell out.

Logging into Bloomberg and learning that *no one* is offering Apple shares at the current price of $315 tells you the exact same thing as logging into Bloomberg and learning that the most recent Apple share to trade sold at $320. They both say: you might be able to sell some more shares at $317.50. So ration prices aren't necessary for signaling; queue prices work too.

The signaling parity between ration pricing and queue pricing tells us that there is no single unique efficient price in any given market, the consequences of which we must swallow whole for the sake of efficiency.

When market participants queue-price shortages, market prices are efficient in the sense of accurately signaling the current *minimum* value that sellers place on any particular good.

When market participants ration-price shortages, market prices are efficient in the more-familiar sense of accurately signaling the current *maximum* value that buyers place on any particular security.

In other words, you can run an efficient market on either demand-based signaling (ration pricing) or supply-based signaling (queue pricing). Which makes sense. Both demand and supply determine market outcomes. Why should information about demand be more valuable than information about supply?

THE TROUBLE WITH MANDATING QUEUE PRICING

If queue pricing is a viable—and more just—alternative to ration pricing, shouldn't government impose it?

Yes and no. Government can and should act to stop clear cases of ration pricing. I have argued, for example, that Amazon's dynamic pricing algorithms might violate the antitrust laws because all that technology can do is facilitate ration pricing.

But ration pricing is pervasive: it's the basic driver of short-term moves in both stock prices and housing prices, for example. To stop all ration pricing, government would need to know the price at which every trader or homeowner would have been willing to sell absent the opportunity to ration with price. Which of course government can't know.

To see why, consider the question whether you, dear reader, should have your salary reduced by $1,000 because you are ration pricing a shortage in whatever intellectual capital you happen to bring to your current employer.

Suppose that you would otherwise spend that $1,000 on a new computer. If the computer is essential to maintaining the value of your intellect, then it's a cost of production, and it would be a mistake for government to take it away.

But if your old computer is still working just fine, then a new one might just be an indulgence, and the $1,000 would represent excess profits that should go. But how is the government supposed to know what you need and what you don't?

REMORALIZING MARKETS

Once upon a time, society tried to deal with this enforcement problem through morality, shame, and the concept of the just price. Which is why the "greed is good" ideology that took hold in America in the 1970s and 1980s, and globalized with the fall of the Berlin Wall, is not merely of cultural interest.

It weakened the moral force fields that pulled sellers toward the queue price, liberating them to charge ration prices, and be proud doing it. There's a reason why AT&T, which strove throughout the 1950s and 1960s not to let monthly phone bills exceed the cost of a medium pizza with two toppings, today has no such scruples.

The collapse of just-price morality was not, however, the product of a corporate plot. Instead, it was part of a broader rejection of morality, and the limits morality places on freedom, across the culture, spearheaded by progressives themselves through lengthy battles regarding freedom of speech, the separation of church and state, and sexual liberation, among many others.

But there was a catch: If you could screw anyone, why couldn't you screw everyone?

That suggests that despite growing interest among progressives, including me, bringing morality back to markets may be a fool's errand.

The morality that died in the mid-twentieth century had been a dead man walking anyway, ever since evolution put paid to the belief in god a century before. It's going to be difficult to get market morality back without a little help from on high. But He's never been much of a progressive.

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