How to Break the Cycle of Hoarding

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“What happened to the soap?” That’s what many Americans may be thinking as they wander forlornly through the aisles of local grocery stores (always careful, of course, to maintain a 6-foot distance from other customers). Fresh food may be abundant, but the necessities of a disease quarantine — hand soap, sanitizer, toilet paper and so on — are increasingly hard to find. For soap, hoarding could set back the country’s ability to suppress the coronavirus by making it harder for people to clean their hands — which medical professionals say is important to prevent the disease from spreading.

As it happens, economists have been thinking about the problem of hoarding for a while. In 1991, the late Harvard University economist Martin Weitzman wrote a paper called “Price Distortion and Shortage Deformation, or What Happened to the Soap?” in which he tried to model why stores in the Soviet Union seemed chronically low on this crucial consumer good.

To analyze shortages, Weitzman tossed out the classic assumption that supply and demand simply match each other as if by magic. Instead, he modeled a more realistic process in which consumers buy a certain amount of something and then use it up over time, then go buy more. He found that shortages caused by

government price distortions can be self-reinforcing — the more people have to wait in line or hunt around to find soap, the more soap they'll stock up on when they finally do get a chance to buy. Hoarding only makes the shortage more acute.

But the soap shortages now facing Americans are not caused by government attempts to hold down the price of the good; they're caused by a combination of psychology and rational precaution. On the rational side, going to the store less frequently means a lower chance of getting infected. And in the event that the viral outbreak gets so severe that governments are forced to close many stores, the market system may break down, forcing people to wait in long and potentially hazardous lines at government distribution centers for soap and toilet paper.

Meanwhile, the epidemic has created a sense of panic that makes people stock up on necessities in order to feel a little safer and more in control. Experimental studies suggest that rational worry and emotional panic amplify each other in hoarding situations. And even a small number of irrational hoarders can force more level-headed buyers to clean out the shelves pre-emptively.

To ensure that everyone has soap, the shortage itself must be relieved.

Weitzman's model suggests two ways to accomplish that. First, because hoarding is caused by the difficulty of hunting around for supplies, providing information can help stop the behavior. Cities can set up websites or apps where every store has to report how much soap it has on the shelves, and provide this information freely to all consumers. This will quiet people's fear of being forced to search far and wide for the places that still have soap, making them less likely to buy huge amounts all at once.

Second, stores need to ration how many bars or bottles of soap customers are allowed to buy. That will make it harder for both irrational hoarders and rich people to buy up all available supplies. Secure in the knowledge that other people won't be able to hoard, rational consumers will feel less pressure to stock up.

Noah Smith is a syndicated columnist.