

Economists can often use a single law to explain a wide variety of events. One of these laws can even explain how well Houston will fare in the aftermath of the flooding it recently experienced. The law is simply — as more of an input is applied, the gains in output often become smaller. Before I apply this economic law to predict Houston's fate, let me discuss a few other predictions that this law can make, so that you will see how widely applicable the idea is. First, it explains why so many students have a hard time getting an A. For a student, the first few hours devoted to studying are very productive. They learn material that will definitely be on the test. However, each additional hour of studying raises a student's grade by fewer points, mostly because in order to remain productive, the student must start studying material that has an increasingly small chance of being on the test. Therefore, an F student can raise his grade to a D with an hour of studying, but a student will have to spend many hours of studying to raise his grade from a B to an A.

This law explains why China's economic growth has started to decline. To illustrate, consider the extreme case, of a country that has no tools or factories. When a country uses its first tool, output will increase by a lot since the country will choose to use the most productive tool first. If the country starts using a second tool, it will have to use the second most productive tool. When it uses a third tool, it is left to choose the third most productive tool, and so on. Each extra tool allows a country to expand output, but in increasingly small increments. Years ago, China was poor, so it had few tools and it could add the most productive tools and grow quickly. Now that China has accumulated some tools, it is left to add comparatively less productive tools. As it adds additional tools, its output has been increasing by smaller amounts and we have already seen that its growth rate has started to decline.

The law also explains why Japan and Germany recovered so quickly from World War II. During the war, the allies bombed German and Japanese factories, leaving these countries with few factories. These two countries were in a similar situation to China when China was poor. Japan and Germany could add tools and factories and gain huge increases in output simply because they had so few factories to start with. These countries were adding the most efficient factories to its work effort. As investment continued to flow into these countries, they had to purchase factories that were progressively less productive, so they eventually experienced declining growth rates.

Now that we have shown how this law can be applied, we can turn our attention to Houston. It is the fourth largest city in the U.S. and last year it was responsible for 3% of the output in the whole nation. Houston just experienced horrific flooding from Hurricane Harvey. Businesses and infrastructure lay in ruins. However, the economic law that I have been discussing in this column predicts that Houston will recover rapidly. The storm wiped out a lot of factories in Houston, much like Allied bombs wiped out the factories in Frankfurt, Germany. With so few factories left, Houston will be able to add new very productive factories. Remember, the first factories are the most productive. Because these factories are so productive, building them represents a great business investment, so money will flow into Houston to pay for the rebuilding effort. As Houston rebuilds, the productivity of new factories will decline. However, new factories in Houston will remain a great investment option until Houston recovers. At this point, its factories will be rebuilt and it will be no different from other great U.S. cities.

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