

# JARGON ALERT

## Equilibrium

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At the most basic level, a market is in equilibrium when supply and demand are balanced. In that state, the going price is one in which the amount that buyers want to buy exactly matches the amount that sellers want to sell. Otherwise, buyers would bid up the price to resolve a shortage, or sellers would cut prices to rid themselves of a surplus.

Another way of putting it is that equilibrium is a state in which there is no impetus for change: The producer's profits are maximized, the consumer is as satisfied as possible given his budget, or profit opportunities have been exhausted such that no new firms want to enter a market. Economic theory includes countless types of equilibria.

Of course, markets can be knocked out of balance when something comes along to disrupt them. A temporary shift, like a hurricane that wipes out a season's crop of oranges, will result in short-lived changes in the market price and quantity sold. After such shifts, competitive markets tend to gravitate back toward their original equilibrium, although a more fundamental shift — like a permanent tax on oranges — can produce a new equilibrium altogether.

The concept of equilibrium helps policymakers understand the likely effects of a given policy. Suppose you're a policymaker who wants to know how raising your state's minimum wage will affect your constituents. Economic theory is fairly conclusive: Making low-wage workers more expensive will cause employers to demand fewer of them. Some lucky workers will receive the new, higher minimum wage, but others will lose their jobs entirely. In equilibrium, employment following a minimum-wage hike is unambiguously lower.

In theory this must be true, but the evidence for the effect has been weak. One reason is that labor markets for low-wage workers don't function in isolation. Workers displaced by the higher minimum wage may move to uncovered industries or new geographic locations, pushing down wages but raising employment there. Consumers may switch from fast food, now made more expensive, to mid-scale cafes, increasing the demand for higher-paid waiters and waitresses. Some workers may be unable to find work and drop out of the labor market entirely, no longer being counted in employment statistics.

The single-market analysis — in the minimum wage example, the analysis that found unambiguous effects on employment — is called a *partial equilibrium* perspective. It takes into account only one market at a time — the market

for the state's low-wage workers — holding fixed the prices and quantities in all other markets, like neighboring states and industries. But this is often not the end of the story, since changes in the market for one good frequently affect the markets for others. General equilibrium analysis considers all of these interrelated markets at once.

A partial equilibrium perspective can be useful if the effects of a given policy on other markets are likely to be small. A tax on gasoline, for example, is not likely to affect the market for pencils, but it will probably affect the market for cars. When markets are tightly linked — as labor markets tend to be in countries like the United States where labor flows relatively freely — looking at related markets simultaneously is a truer measure of a policy's effect.

French economist Leon Walras created the first general equilibrium models in the late 1800s. Partial equilibrium models, though seemingly more simple, were actually developed later to describe isolated markets. In the 1950s, Kenneth Arrow and Gerard Debreu advanced two striking conclusions about general equilibrium in competitive markets: First, the equilibrium is optimal in the sense that no one can be made better off without taking something away from someone else. And second, virtually the only thing competitive markets need in order to reach equilibrium is a flexible price system to bring willing buyers and sellers together.

These powerful results explain why economists can be so quick to defend unfettered markets and to decry distortions, like taxes and subsidies, that move prices from their equilibrium values. That said, markets can occasionally have flaws, called "market failures," that cause the equilibrium to be less than optimal for society. In such cases, well-crafted taxes and subsidies may be able to shift prices and quantities to a new, more beneficial equilibrium.

The general equilibrium approach is part of what distinguishes economics as a science. One reason economists may disagree with the general public and elected leaders is that the latter groups are sometimes asking a different question — how policies affect their own welfare and constituents — than economists, who are trained to look at the whole picture. Calculating general equilibrium is by no means straightforward, however. It requires assumptions about market linkages, which are fraught with a good deal of uncertainty. That's why, when economists are asked about a policy's likely effect, they often give the most frustrating answer of all: It depends.

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