

# MARKET SIGHT LINES



## Learnings From Economic Theory: Inflation Has Gone Vertical!

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Last week, we wrote about elevated inflation, Federal Reserve (Fed) policy, and the market's reaction in [Market Volatility: More Storms, Clear Skies, or Both?](#). And we've all experienced inflation. This past weekend, my family and I noticed a 20%-25% jump in prices at our favorite restaurant, we watched at the deli as the price of the turkey we were buying was being increased by 30% as they sliced our order, and then there's the story of a nephew's \$1,100 per month rent increasing by \$400. And we've likely all experienced elevated gas prices this summer. Examples of prices going vertical are all around.

In this week's Sight|Lines, we'd like to review the concept of supply-demand in economic theory, how some concepts we've been talking about – higher demand and supply constraints – are causing inflation to go vertical, and what that might mean for future inflation.

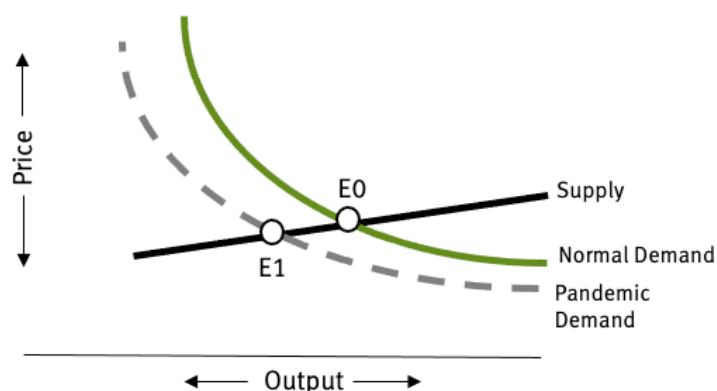
### SUPPLY-DEMAND ENTERING THE PANDEMIC

Figure 1 shows normal supply-demand (black/green lines). In this graph supply is elastic, meaning a large change in the quantity supplied does not produce a large change in price. Consider, for example, bottled water. Throughout the pandemic, despite shortages, the price for a case of water hasn't changed by much as there is plenty of supply from tap water, which is practically free.

The demand curve measures how much demand for the good will be affected by a change in price. So as prices rise, demand falls. The intersection of these two lines illustrates how the "equilibrium" price (E0) is defined – where the output level of supply and demand meet.

We also illustrate here what might have happened to demand as the economy started to close given the pandemic, shifting the entire curve to the left for some goods and services (dotted line). Examples include going to restaurants, working out at the gym, or taking the bus to work. Demand fell quickly and in many cases was nonexistent. For those still seeking these services, prices may have fallen, which may explain why inflation was muted at the beginning of the pandemic. For example, round-trip airline fares in April 2020 to many destinations were a fraction of their typical cost.

Figure 1: Normal Supply -Demand



## SUPPLY-DEMAND AS DEMAND PICKS UP

Let's next consider what happens when relief checks are issued, government spending increases, and the economy starts to reopen. Demand picks up quickly, and isolating that effect, we see the demand curve shift to the right (blue line). If supply price-output relationships have remained unchanged (i.e., supply hasn't picked up), the increase in demand will drive prices higher, fueling some inflation (E1 moving to E2).

We all likely experienced this in some form. I can recall first returning to that favorite restaurant, well before it was fully booked, and prices were the same as before the pandemic, or for some items only slightly higher.

## THE DRAMATIC IMPACT OF CONSTRAINED SUPPLY

The war in Ukraine constrained the supply of crucial resources such as wheat, fertilizer, and specialty minerals. We've also heard about supply chain pressures, like the shortage of semiconductors, which has greatly reduced the supply of new cars, for example. This causes the supply curve to steepen (red line), meaning cars at the current level of supply are much more expensive. We see that constrained supply, coupled with increased demand, causes prices to rise, driving inflation higher (E2 to E3).

## THE PATH BACK TO NORMAL

Fed Chair Jerome Powell told Congress this week that price stability is "the bedrock of the economy." The Fed has hiked the fed funds rate to slow the economy, which should lessen demand, shifting that curve left. The chart illustrates that there is a chance that falling demand (as a result of higher rates) for supply-constrained goods may cause prices to fall dramatically (E3). Then, add to that the effect of easing supply constraints, and prices may fall even further (E4). For example, once car dealerships have normal inventory levels, prices should return closer to normal.

## CONCLUSION

The dynamics of supply and demand may well explain why inflation has gone vertical. Fed policy may slow the economy down, reducing demand and possibly allowing prices to slide back down the vertical curve. As supply chain issues and other supply constraints resolve, the supply curve itself may pivot back to a more horizontal slope, which may lower prices but also lessen the impact of any increase in demand on prices. We hope you've found this review of economic supply-demand theory helpful to understand why inflation has gone vertical.

Figure 2: Supply-Demand as Economy Reopens

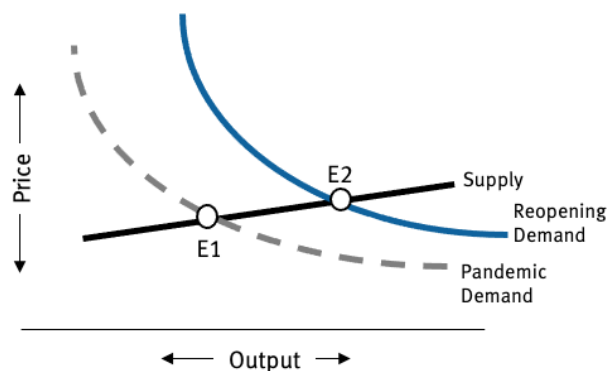


Figure 3: Constrained Supply

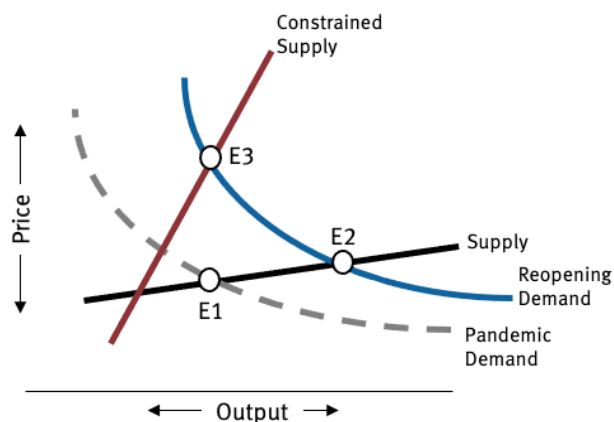
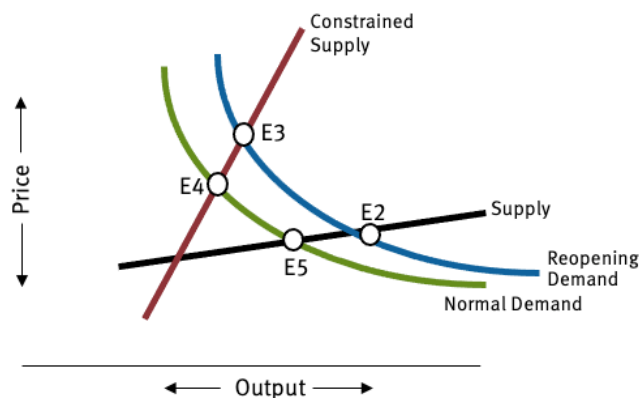


Figure 4: The Path to Normal Equilibrium



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