

Discussion 03

Instructor: Yushang Wei
Introduction to Macroeconomics

June 2, 2023

Reading list: Chapter 3 and Chapter 4

1. Supply, Demand, Equilibrium
2. Price Control
3. Consumer surplus, Producer surplus

Question 1

The price of gasoline is driven (mostly) by crude oil prices. Please read the Figure 1 and 2 and answer Question 1

Part (a)

Why might the price of gasoline have fallen by so much at the beginning of the pandemic? Illustrate using a supply and demand diagram.

Part (b)

The reduction in demand at the beginning of the pandemic created an “inventory glut.” How did this affect the price of crude oil?

Part (c)

Producers have been slow to ramp up production of crude oil. What has been happening to the demand recently, and why, and how do these two things together affect the price of gasoline? Illustrate using a supply and demand diagram.

Part (d)

How does the rising price of gasoline impact the supply of gasoline? The demand for gasoline?

Question 2

Suppose that Fanny wants to purchase a washing machine. He is also ready to spend a maximum of \$800. Nonetheless, he discovers a reputed electronic store offering the desired product at just \$500. Calculating consumer surplus. Explain.

Question 3

The accompanying diagram illustrates a taxi driver's individual supply curve(Figure 3) (assume that each taxi ride is the same distance)

Part (a)

Suppose the city sets the price of taxi rides at 4 dollars per ride, and at 4 dollars the taxi driver is able to sell as many taxi rides as he desires. What is this taxi driver's producer surplus?

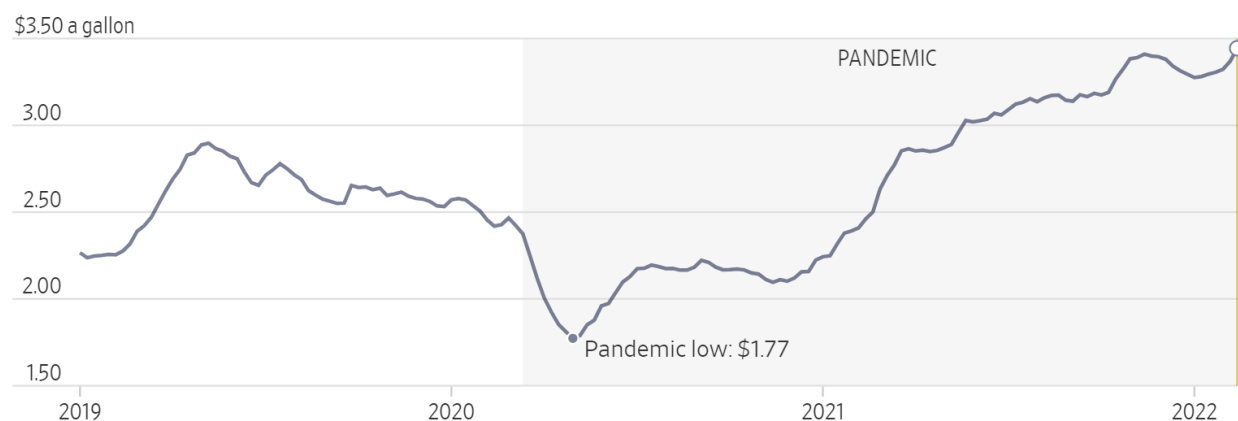
Part (b)

Suppose that the city keeps the price of a taxi ride set at 4 dollars, but it decides to charge taxi drivers a "Licensing fee." What is the maximum licensing fee the city could extract from this taxi driver?

Part (c)

Suppose that the city allowed the price of taxi rides to increase to 8 dollars per ride. Again, assume that, at this price, the taxi driver sells as many rides as he is willing to offer. How much producer surplus does an individual taxi driver now get? What is the maximum licensing fee the city could charge this taxi driver?

Regular-gasoline price, national average



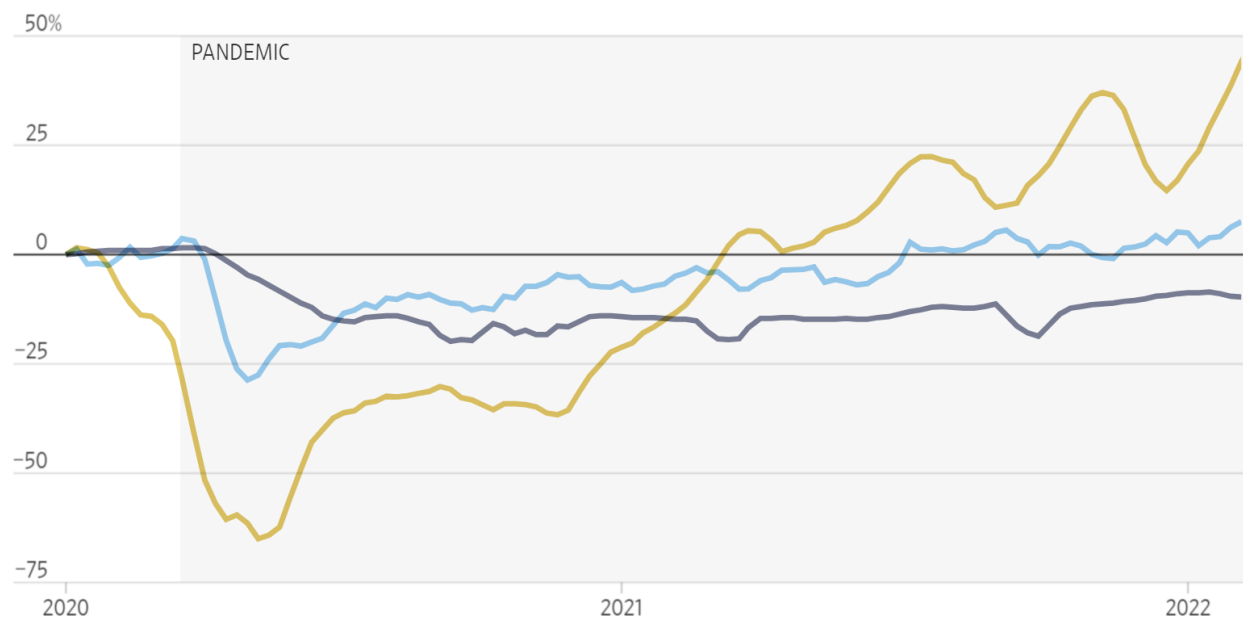
Source: Energy Information Administration

Figure 1: Regular-gasoline price

Crude-oil supply, demand and price

Percentage change from year-end 2019 levels

■ Supply ■ Demand ■ Price



Note: Based on four-week moving averages of U.S. field production (supply), U.S. consumption of petroleum products (demand) and weekly U.S. crude-oil futures prices.

Sources: Energy Information Administration (supply, demand); FactSet (price)

Figure 2: Crude-oil

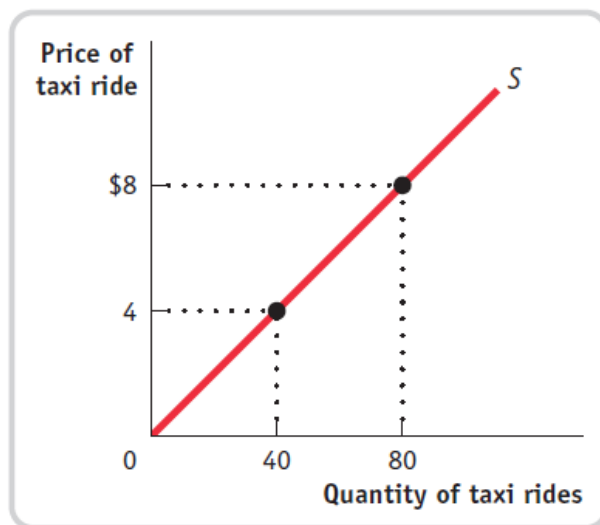


Figure 3: