RETROREPORT
Independent • Objective • Nonprofit

Activity | Thalidomide: How Price Controls Shape Economic Outcomes

Background: Thalidomide, introduced in the 1950s as a sedative and treatment for morning sickness, led to severe birth defects before its risks were fully understood. In the United States, stricter oversight by the Food and Drug Administration limited the drug's impact compared with other countries. Today, thalidomide derivatives are still prescribed for certain conditions, while rising prescription drug costs continue to draw public attention. This lesson examines the relationship between pharmaceutical companies and government regulators and explores how price controls might influence the cost of prescription medications.

Objective: Compare the competing incentives of producers, consumers, and government institutions and determine how these incentives are impacted by the institution of price controls like price floors and price ceilings.

Answer the following question based on your current knowledge of economic principles and real-life experiences. **What happens when prices rise too high for essential goods like housing or medicine?**

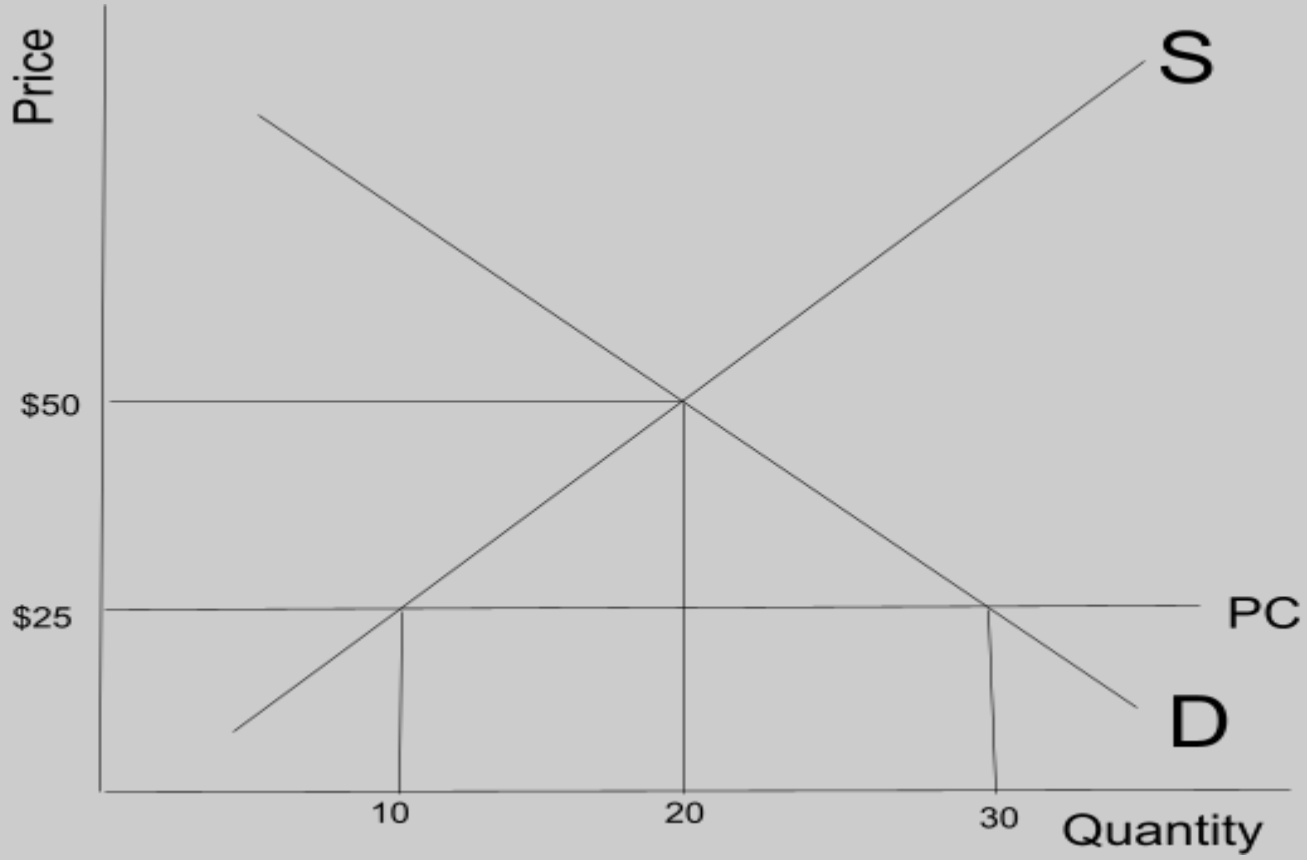
Define the following terms in plain language.	
Price ceiling	
Price floor	

Watch the Retro Report video **"Thalidomide: From Tragedy to Treatment"** (Transcript) and answer the following questions.	
Why did pregnant women take thalidomide?	
Why were Dr. Francis Kelsey's concerns about granting F.D.A. approval of thalidomide?	
What did victims of the drug have to do to receive financial	

compensation?	
How has thalidomide been used in recent years?	
How is thalidomide influencing policy and regulation today?	

Reflect on the following questions using economic reasoning.	
The drug Revlimid now costs about $18,000 for a 21-day supply. Why might a company choose to charge such a high price?	
Using an example from the film, what problems can occur when buyers don't have full information about the product they're getting?	
What are the trade-offs of limiting or delaying a product like thalidomide?	
How might government regulations affect how many companies want to create new drugs?	

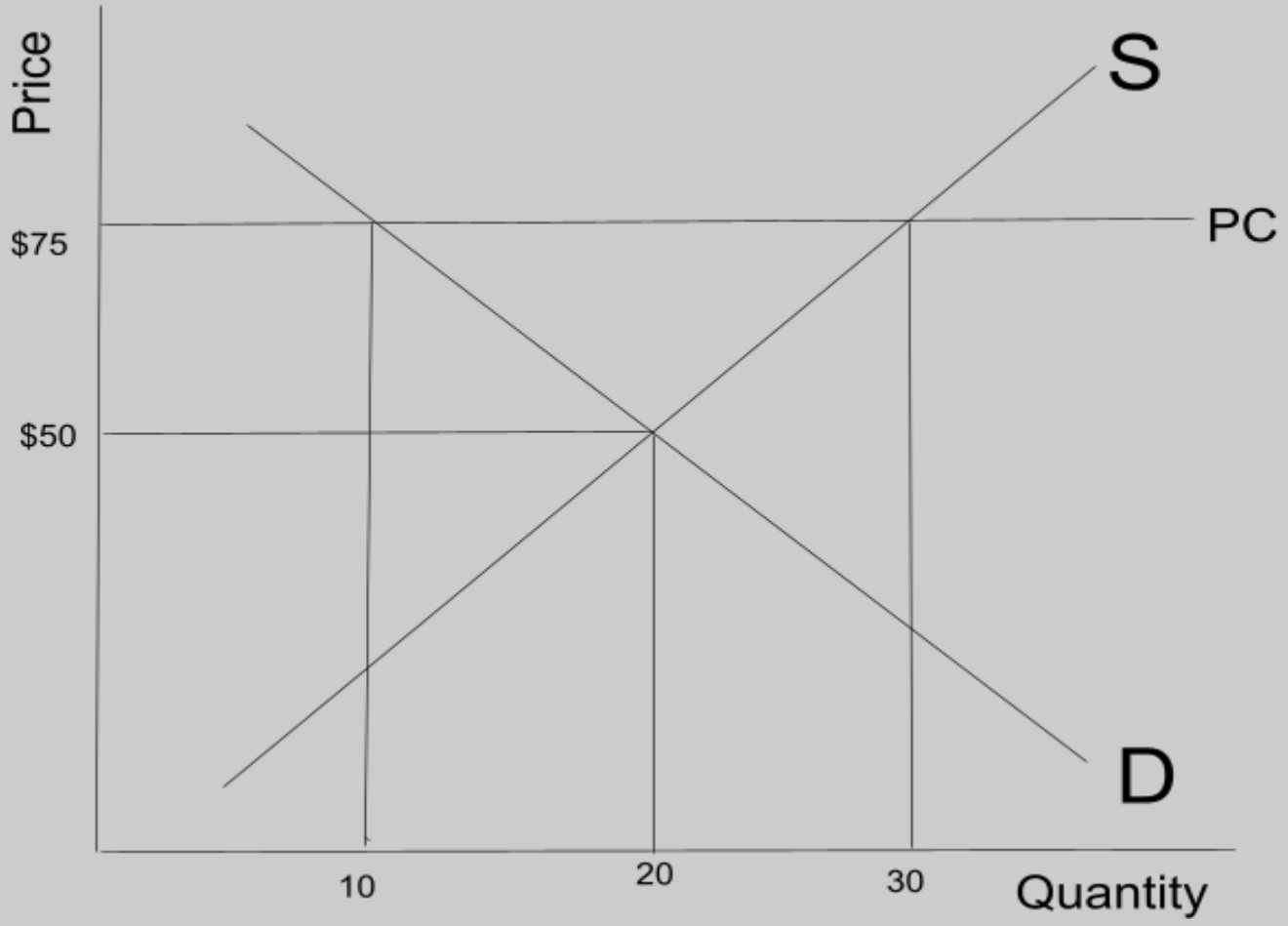
Analyze the following graph showing a price ceiling using the questions provided. Be sure to look at labels, prices, and quantities demanded/supplied. In the graph below, assume that the government has installed a price ceiling (PC) at $25 for a good in a market.



Source: T. Dettmann

What are the equilibrium price (P_E) and the equilibrium quantity (Q_E) of the good shown in the market above?	
At the government-set price ceiling, how much is the quantity of goods demanded by consumers (Q_C) and the quantity of goods supplied by producers (Q_S)?	
Is the result of the price ceiling a shortage, a surplus, or neither? Explain.	

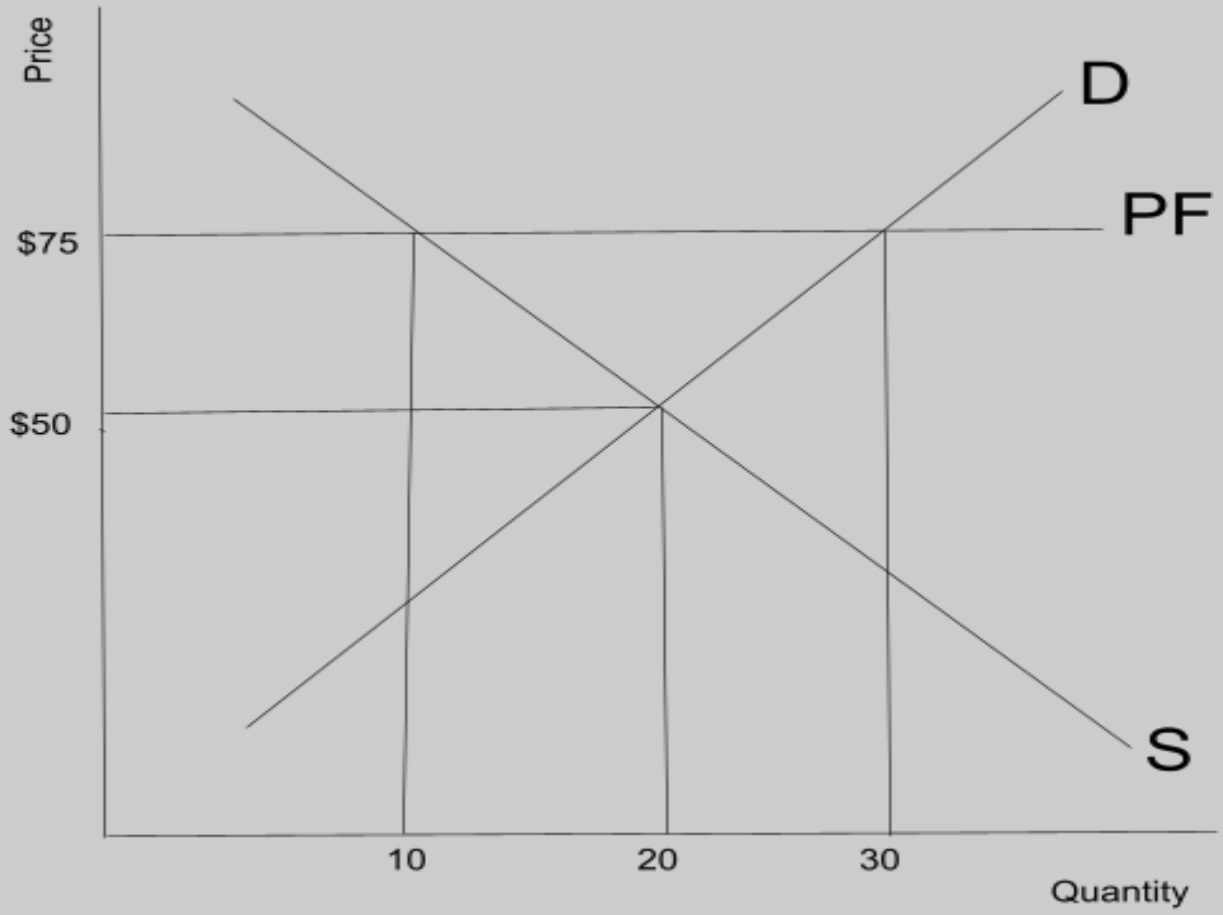
Analyze the graph showing a price ceiling using the questions provided. Look at labels, prices and quantities demanded/supplied. Assume that the government has installed a price ceiling (PC) at $75 for a good in a market.



Source: Source: T. Dettmann

What are the equilibrium price (P_E) and the equilibrium quantity (Q_E) of the good shown in the market above?	
With the price ceiling above equilibrium, what are the price and quantity of goods that will be produced and consumed?	
Is the price ceiling effective? Why or why not?	

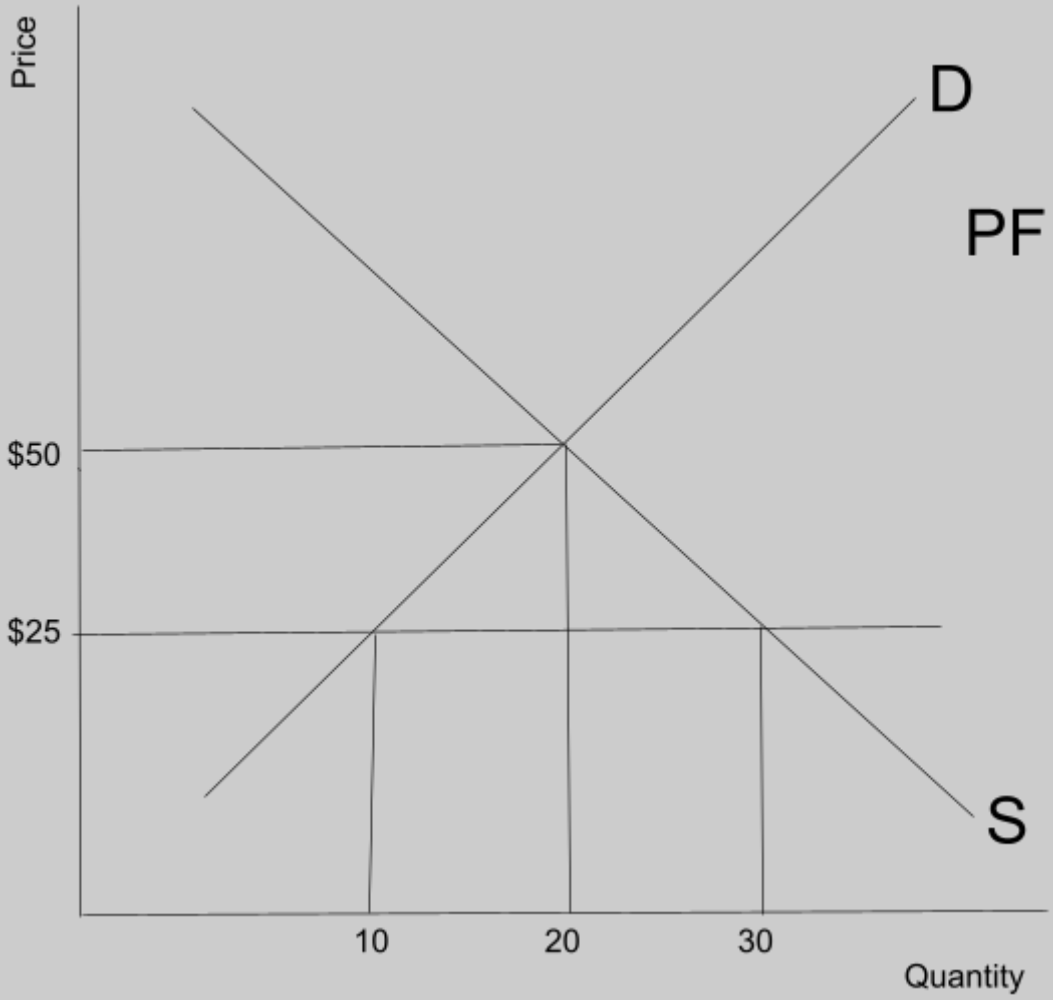
Analyze the following graph showing a price floor using the questions provided. Be sure to look at labels, prices, and quantities demanded/supplied.
In the graph below, assume that the government has installed a price floor (PF) at $75 for a good in a market.



Source: Source: T. Dettmann

What are the equilibrium price (P_E) and the equilibrium quantity (Q_E) of the good shown in the market above?	
At the government-set price ceiling, how much is the quantity of goods demanded by consumers (Q_C) and the quantity of goods supplied by producers (Q_S)?	
Is the result of the price ceiling a shortage, a surplus, or neither? Explain.	

Analyze the following graph showing a price floor using the questions provided. Be sure to look at labels, prices, and quantities demanded/supplied. Assume that the government has installed a price floor (PF) at $75 for a good in a market.



Source: Source: T. Dettmann

What are the equilibrium price (P_E) and the equilibrium quantity (Q_E) of the good shown in the market above?	
With the price floor below equilibrium, what are the price and quantity of goods that will be consumed and produced?	
Is the price floor effective? Why or why not?	

RETROREPORT
Independent • Objective • Nonprofit

Analyze the following excerpt about price controls by answering the questions that follow.

Excerpt #1

"The appeal of price controls is understandable. Even though they fail to protect many consumers and hurt others, controls hold out the promise of protecting groups that are particularly hard-pressed to meet price increases. Thus, the prohibition against usury—charging high interest on loans—was intended to protect someone forced to borrow out of desperation; the maximum price for bread was supposed to protect the poor, who depended on bread to survive; and rent controls were supposed to protect those who were renting when the demand for apartments exceeded the supply, and landlords were preparing to 'gouge' their tenants."

Source: "Price Controls" | EconLib (Hugh Rockoff is an economics professor at Rutgers University)

According to the excerpt, what are governments trying to accomplish with price controls?	
Whom are price controls meant to protect, and from what?	
What might make price controls appealing to the public?	

Excerpt #2

"Because controls prevent the price system from rationing the available supply, some other mechanism must take its place. A queue, once a familiar sight in the controlled economies of Eastern Europe, is one possibility. When the United States set maximum prices for gasoline in 1973 and 1979, dealers sold gas on a first-come-first-served basis, and drivers had to wait in long lines to buy gasoline... The true price of gasoline, which included both the cash paid and the time spent waiting in line, was often higher than it would have been if the price had not been controlled."

Source: "Price Controls" | EconLib (Hugh Rockoff is an economics professor at Rutgers University)

What problem did gas price controls create in the U.S.?	
How did waiting in line change the "real" cost of gasoline?	
What happens when prices can no longer ration goods?	

Excerpt #3

"The incentives to evade controls are ever-present, and the forms that evasion can take are limitless... One

of the simplest forms of evasion is quality deterioration. In the United States during World War II, fat was added to hamburger, candy bars were made smaller and of inferior ingredients, and landlords reduced their maintenance of rent-controlled apartments... Not only do producers have an incentive to raise prices, but some consumers also have an incentive to pay them. The result may be payments on the side... or it may be a full-fledged black market."

Source: "Price Controls" | EconLib (Hugh Rockoff is an economics professor at Rutgers University)

What are some ways sellers try to get around price controls?	
How does product quality change when prices are controlled?	
Why do black markets often appear under price controls?	

Analyze the following excerpt about government price controls implemented in the market for insulin, a hormone used in the treatment of diabetes.

"The Inflation Reduction Act's policy capping out-of-pocket costs for insulin to $35 for a month's supply led to increases in the total number of insulin fills for Medicare beneficiaries, according to a new study from the USC Schaeffer Center for Health Policy & Economics and University of Wisconsin–Madison…

The amount spent out-of-pocket for insulin has skyrocketed for Medicare enrollees, from $236 million in 2007 to more than $1 billion in 2020. As a result, many patients with diabetes ration the life-saving drug, increasing the risk of poor health outcomes. In January, the Inflation Reduction Act (IRA) capped all Part D beneficiaries' out-of-pocket costs for insulin at $35 for a month's supply. The study's findings suggest the cap is encouraging patients to fill their insulin prescriptions…

'Ensuring access to affordable insulin is critical for promoting health equity given that Black and Latinx individuals, including among Medicare populations, are more likely to suffer from diabetes and experience barriers in accessing diabetes medications, including insulins,' said co-author Dima Mazen Qato… "

Source: "Study: Inflation Reduction Act's Cap on Insulin..." | University of Southern California Alfred E. Mann School of Pharmacy and Pharmaceutical Sciences, 2023

Did the implementation of a price cap on out-of-pocket costs cause a shortage of insulin?	
What does the increase in	

prescription fills suggest about the price previously charged for insulin?	
Craft a hypothesis on when using a price control may be beneficial to an economy.	

Compare the incentives of government institutions and producers in an economy. For each incentive, determine whether it belongs to: Government institutions only, Both government institutions and producers, Producers only.	
Protect public safety	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Reduce production costs	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Maintain reputation/trust	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Ensure product quality	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Maximize profit	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Prevent market abuse	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Promote innovation	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Limit harmful side effects	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only

Maintain reputation/trust	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only
Respond to public demand	☐ Government institutions only ☐ Both government institutions and producers ☐ Producers only

Think–Pair–Share: Consider the questions about thalidomide and price controls and record your answers below. Then, discuss your response with a partner before sharing what you discussed with the class.	
How does the history of thalidomide relate to modern debates about drug pricing and government regulation?	
Why might a government choose to implement a price control even if it risks causing a shortage or surplus?	
How do price controls affect the incentives for buyers and sellers in a market?	
What role does public opinion or political pressure seem to play in the creation or continuation of price controls?	
What unintended consequences can occur when the government sets a maximum price on essential goods like gasoline or housing?	
What alternatives to price controls might better address issues like high rent, expensive medicine, or inflation without distorting the market?	
After learning about both the benefits and drawbacks of price controls, what would you recommend to a policymaker facing pressure to cap prices on a specific good or service?	