Solutions

1. a
2. a
3. c
4. d
5. b
6. a
7. d
8. c
9. d
10. c
11. c
12. c
13. d
14. d
15. c
16. a
17. d
18. d
19. c
20. b
21. λ

Solution 22

$$\frac{6-4}{4} \times 100 = 50\% \quad \text{and} \quad \frac{20-10}{10} \times 100 = 100\%$$

The basket used to cost 300, now it costs 500, so

$$\frac{500-300}{300} \times 100 = 66.7\%$$

Since the price of Sour Patch Kids increased relatively more than did the price of Swedish Fish, people who purchase a lot of Sour Patch Kids and little Swedish Fish became worse off relative to people who purchase a lot of Swedish Fish and little Sour Patch Kids.

Solution 23 . The Federal Reserve Bank conducts U.S. monetary policy. It consists of policies to affect the financial side of the economy-most notably the supply of money in the economy. Fiscal policy is conducted by the executive and Congressional branches of government, and entails decisions about taxes and government spending

Solution 24. The standard of living is a measure of how well people live. Income per person is an important dimension of the standard of living and is positively correlated with other things such as nutrition and life expectancy that make people better off. Productivity measures how much people can produce in an hour. As productivity increases, people can produce more (and use less to produce the same amount) and so their standard of living increases.

The factors that determine labour productivity include the amounts of physical capital (equipment and structures), human capital (knowledge and skills), and natural resources available to workers, as well as the state of technological knowledge in society.

Solution 25. Examples in the text (or variations) include increased immigration, a decrease in the minimum wage, less generous unemployment insurance, an increase in the capital stock, an increase in the average level of education, a discovery of new mineral deposits, advances in technology, and removal of barriers to international trade.

Solutions 26.

(a) real

(b) nominal

(c) nominal

(d) real

(e) real

(f) nominal

(g) real

(h) nominal

Solutions 27.

(a) Presumably, when this happens, unless everyone else has anticipated it, dividends, the price of the stock, or both will increase. The interest rate on bonds will not change as profits increase, so this quote suggests buying stock would better suit your brother-in law's purposes.

(b) Bondholders are simply creditors, while stockholders are part owners. So this quote indicates your brother-in-law would prefer to buy stock.

(c) In case of financial difficulties stockholders get paid after bondholders, so the stock is somewhat more risky. So, your brother-in-law may prefer the bond.

Solutions 28

(a) If the Fed buys bonds, it pays for them with reserves so banks will have more reserves and can lend more which will create more deposits and so more money.

(b) If the Fed raises the discount rate banks will borrow less from the Fed, and so have fewer reserves, which decreases the money supply.

(c) If the Fed raises the reserve requirement, banks will have to hold more of their deposits as reserves and so will have less to lend out. With less to lend out, deposits and the money supply decrease.

Solutions 29

(a) A change in demand refers to a shift in the demand curve. A change in quantity demanded refers to a movement along a fixed demand curve.

(b) They all shift the demand curve except for the change in price. (A change in quantity would also move along the curve.)

Solutions 30

(a) Diamonds are luxuries, and water is a necessity. Therefore, diamonds have the more elastic demand.

(b) Insulin has no close substitutes, but decongestant spray does. Therefore, nasal decongestant spray has the more elastic demand.

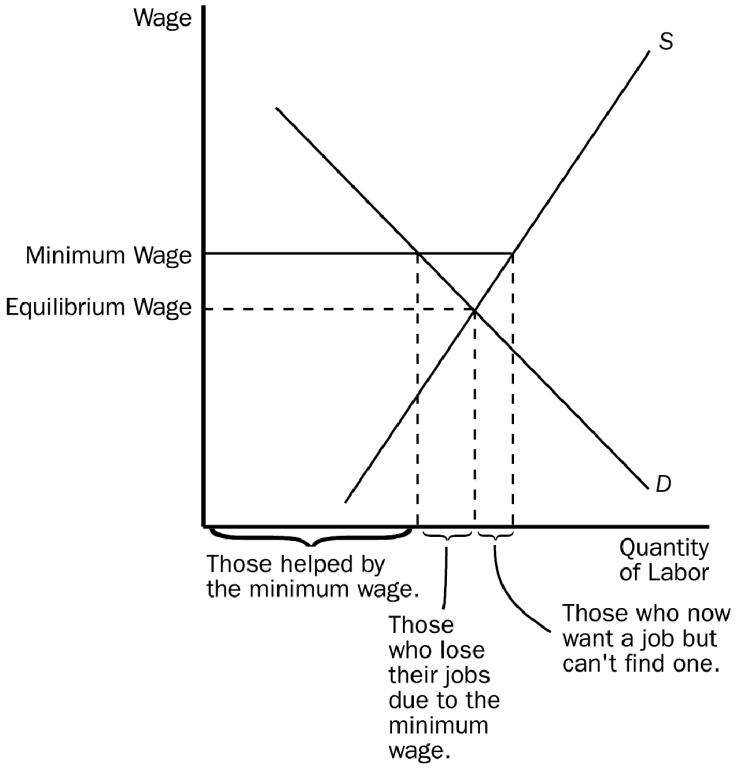
(c) Breakfast cereal has more substitutes than does food in general. Therefore, breakfast cereal has the more elastic demand.

(d) The longer the time period, the more elastic demand is. Therefore, gasoline over the course of a year has the more elastic demand.

(e) There are more substitutes for IBM personal computers than there are for personal computers. Therefore, IBM personal computers have the more elastic demand.

Solution 31 Those helped by the minimum wage are the workers who are still employed, but now receive the higher wage. In the diagram, those would be measured by the quantity of labor demanded at the minimum wage. Those who are hurt by the minimum wage are those who are now unemployed. These workers are measured as the difference between the quantity of labor supplied and the quantity demanded at the minimum wage. The perceptive student might note that the unemployed group can be divided into those who lose their jobs as a result of the minimum wage (the competitive equilibrium quantity of labor minus the quantity demanded at the minimum wage), and those who enter the market as a result of the

higher wage, but cannot find employment (quantity of labor supplied at the minimum wage minus the competitive equilibrium quantity). The buyers of the labor (employers) are also worse off because they have to pay a higher wage for labor, hence, hire a smaller quantity.



Solution 32 $R = 15\%$, so $1/0.15 = 20/3$ is the money multiplier

This will increase the money supply by $1,000,000 \times 20/3$.

The money supply curve will shift to the right, so higher price level and lower value of money.

Solution 33 Lower investment moves SRAS to the left, which increases the price level and reduces output.

I never said investment stopped, so there's still some going on. So the capital stock will increase in the long run, which might shift LRAS to the right a little bit. In the long run then there'd be a little decrease in the price level and a little increase in output, but not as much as if they'd continued investing at the same rate as before.

Here's what happens if the government does nothing. A decrease in aggregate demand causes the price level to fall. If the government takes no action to counter this, then the actual price level will be below the price level that people expected. Individuals will eventually correct their expectations of the price level. As they do so, prices and wages will adjust accordingly, shifting the aggregate supply curve to the right. For example if wages are sticky, in light of the lower price level, firms and workers will eventually make bargains for lower nominal wages. The reduction in wages lowers costs of production, so firms are willing

to produce more at any given price level. Consequently, the short-run aggregate supply curve shifts right. The rightward shift in aggregate supply eventually causes output to rise back to the natural rate

Solutions 34 When the government spends more than it receives in tax revenue, the resulting budget deficit lowers national saving because the change is

$$\Delta Y - \Delta C - \Delta G \quad \Longrightarrow \quad 20 - \Delta C - 20 = -\Delta C.$$

Y is also income, so now people have more income, so they'll spend more, i.e. C will increase. Therefore $-\Delta C < 0$.

The supply of loanable funds decreases, and the equilibrium interest rate rises. Thus, when the government borrows to finance its budget deficit, it crowds out households and firms that otherwise would borrow to finance investment.

The supply of loanable funds shifts to the left, which gives a higher interest rate and a lower quantity of loanable funds in equilibrium.

- investment falls because the interest rate increases
- $S = I$ so national saving falls
- public saving is $T - G$, and since G grows, public saving falls
- $Y - T - C$. Well, Y increases by 20, T doesn't change. What about C? Y is also income, so now people have more income, so they'll spend more, i.e. C will increase. But they won't spend all of it, so C will increase by less than what Y increases. Therefore private saving increases.

Solution 35 In a given day, an alien can make 80 death lasers or 20 teddy bears. So plot those two points and connect them.

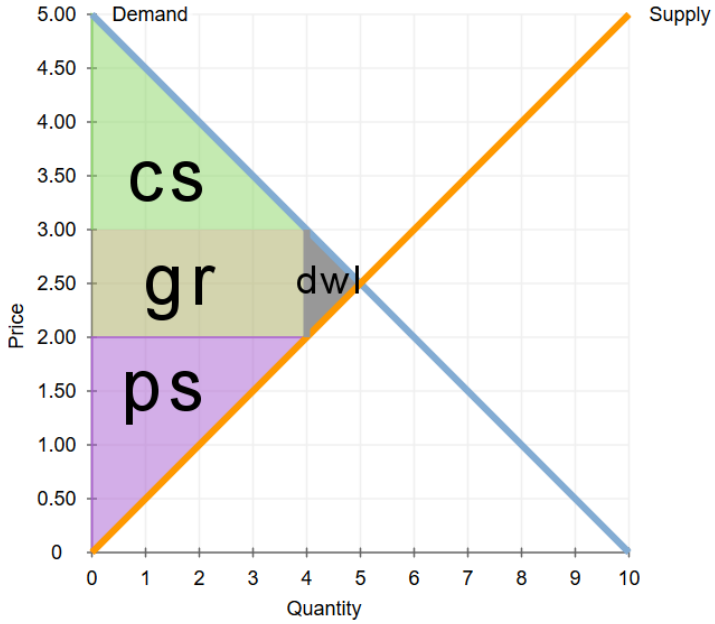
In a given day, a human can make 1 death laser or 64 teddy bears. So plot those two points and connect them.

In one hour, the aliens produce more death lasers, so aliens have the absolute advantage in death lasers. In one hour, humans can produce more teddy bears, so humans have the absolute advantage in teddy bears.

The alien's opportunity cost of one teddy bear is 4 death lasers. The human's opportunity cost of one teddy bear is 1/6th of a death laser. The human has a lower opportunity cost of teddy bears, to that's their comparative advantage. And therefore aliens have the comparative advantage in death lasers. Go figure.

FINAL PROBLEM SOLUTION. Draw a normal supply and demand graph. Draw a line for the equilibrium price. Everything below the price and above the supply is the PS. Everything above the price and below the demand is the CS.

After the tax,


Demand
Supply
cs
gr
dwl
ps
Price
Quantity
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0
0 1 2 3 4 5 6 7 8 9 10