
Ch 3: Supply and Demand

Demand

Demand vs Quantity Demanded

Basic Definitions

Demand: the amount of some good or service consumers are **willing** and **able** to purchase at each price.

No distinction between “needs” and “wants”.

Quantity demanded: the amount of some good or service consumers are **willing** and **able** to purchase at a particular price.

Law of Demand

A fall in price usually produces an increase in the quantity demanded, ceteris paribus.

Ceteris paribus: All other things remaining constant.

Demand Schedule

Definition and Example

Demand schedule: a table that shows the quantity demanded at each considered price.

My Demand Schedule:
Monthly Demand for Latte

<u>\$price</u>	<u>my_qd</u>
1	37
2	33
3	32
4	31
5	27
6	23
7	19
8	12
9	9
10	2

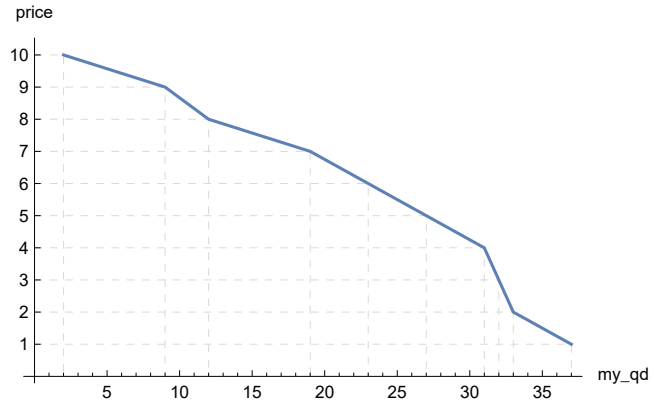
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From Demand Schedules to Demand Curves

My Demand

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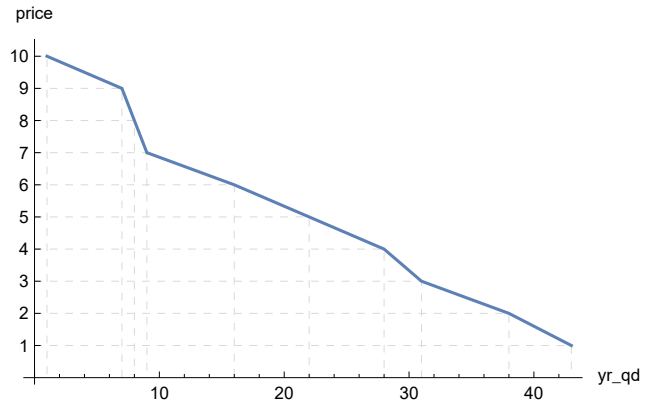
price	my_qd
1	37
2	33
3	32
4	31
5	27
6	23
7	19
8	12
9	9
10	2



Your Demand

Out[]=

price	yr_qd
1	43
2	38
3	31
4	28
5	22
6	16
7	9
8	8
9	7
10	1



Our Joint Demands I

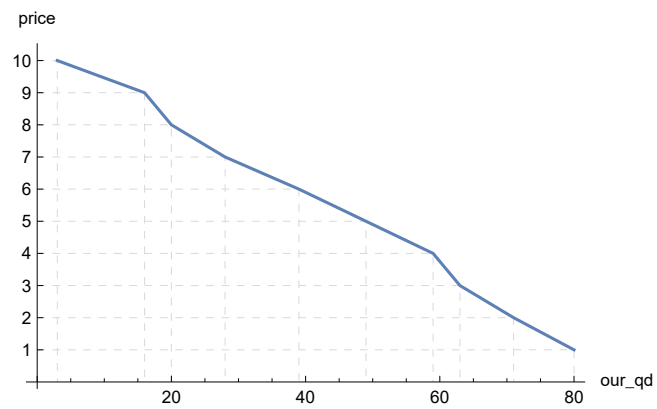
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price	my_qd	yr_qd	our_qd
1	37	43	80
2	33	38	71
3	32	31	63
4	31	28	59
5	27	22	49
6	23	16	39
7	19	9	28
8	12	8	20
9	9	7	16
10	2	1	3

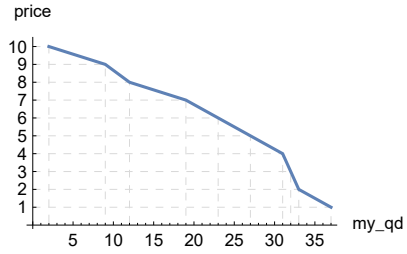
Our Joint Demands II

Out[]=

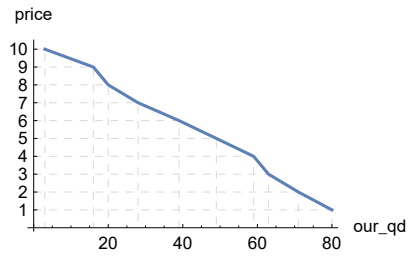
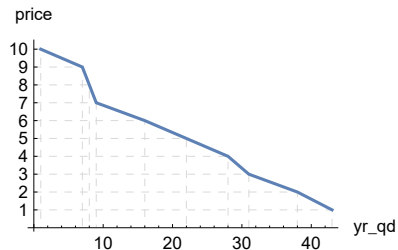
price	our_qd
1	80
2	71
3	63
4	59
5	49
6	39
7	28
8	20
9	16
10	3



Our Joint Demand III

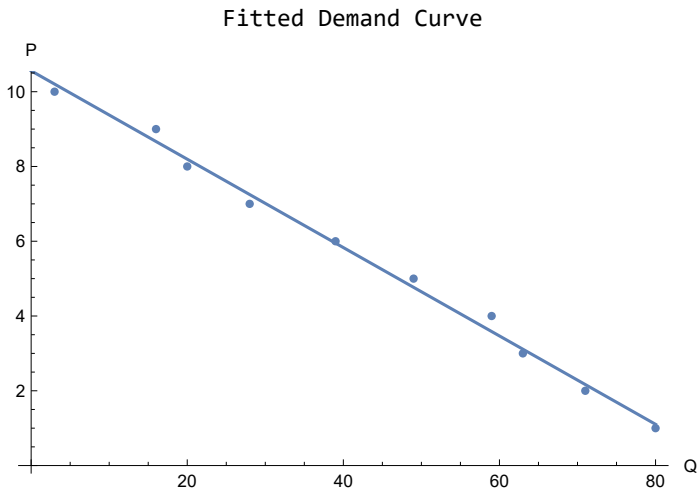


Out[]=



Linear Approximation to the Demand Curve

Out[]=



A linear approximation may adequately represent demand.

Supply

Supply vs Quantity Supplied

Basic Definitions

Supply: the amount of some good or service firms are **willing** and **able** to supply at each price.

Quantity supplied: the amount of some good or service firms are **willing** and **able** to supply at a particular price.

Law of Supply

A fall in price usually produces a decrease in the quantity supplied, ceteris paribus.

Ceteris paribus: All other things remaining constant.

Supply Schedule

Supply schedule: a table that shows the quantity supplied at each considered price.

Davenport's Supply Schedule:

Monthly Supply of Latte

<u>\$price</u>	<u>qs</u>
1	10 000
2	23 000
3	33 000
4	41 000
5	48 000
6	53 000
7	65 000
8	75 000
9	82 000
10	87 000

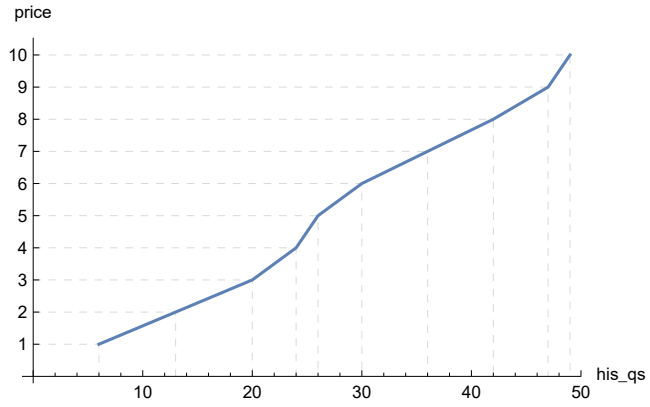
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From Supply Schedules to Supply Curves

His Supply

Out[]=

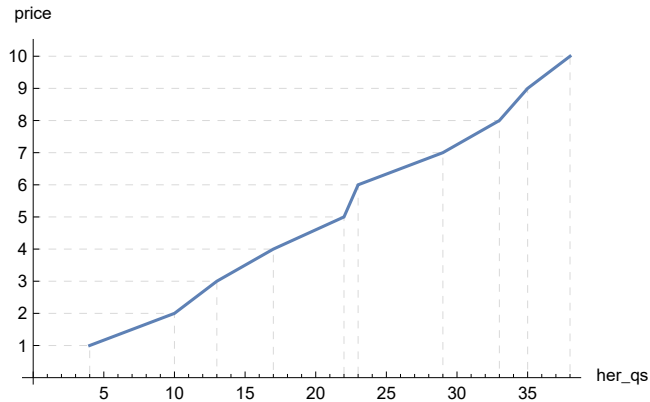
price	his_qs
1	6
2	13
3	20
4	24
5	26
6	30
7	36
8	42
9	47
10	49



Her Supply

Out[]=

price	her_qs
1	4
2	10
3	13
4	17
5	22
6	23
7	29
8	33
9	35
10	38



Summing Their Supplies I

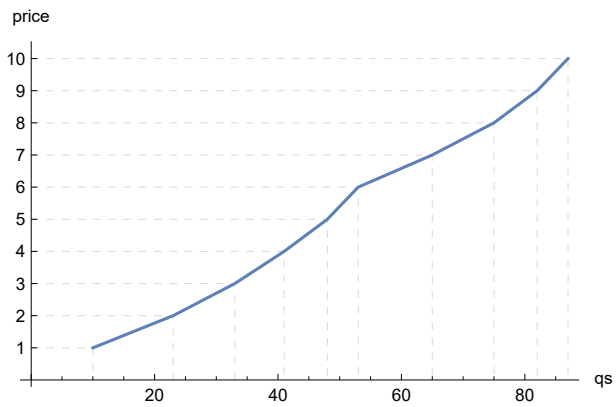
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price	his_qs	her_qs	qs
1	6	4	10
2	13	10	23
3	20	13	33
4	24	17	41
5	26	22	48
6	30	23	53
7	36	29	65
8	42	33	75
9	47	35	82
10	49	38	87

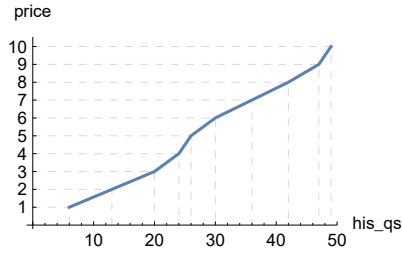
Their Supplies

Out[]=

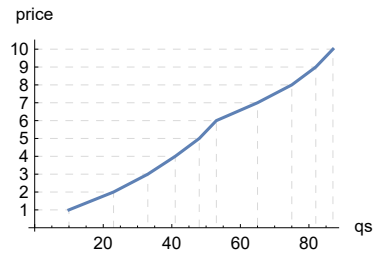
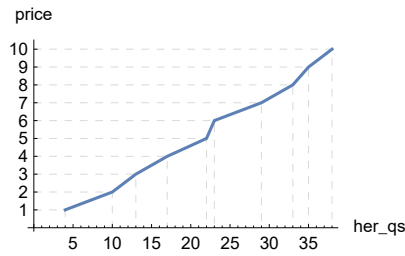
price	qs
1	10
2	23
3	33
4	41
5	48
6	53
7	65
8	75
9	82
10	87



Summing Their Supplies II

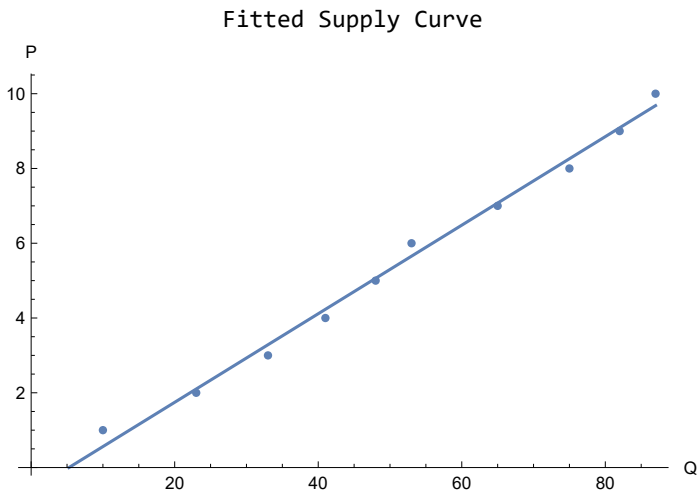


Out[]=



Linear Approximation to the Supply Curve

Out[]=



A linear approximation may adequately represent supply.

Supply-Demand Equilibrium

What is Equilibrium?

Equilibrium: a situation that (*ceteris paribus*) does not tend to change.

An equilibrium is stable if we tend towards it when away from it.

Equilibrium Market Price

When $Q_s > Q_d$ at the current price, there is excess supply in the market.

This is a situation of surplus.

There is downward pressure on the price.

When $Q_s < Q_d$ at the current price, there is excess demand in the market.

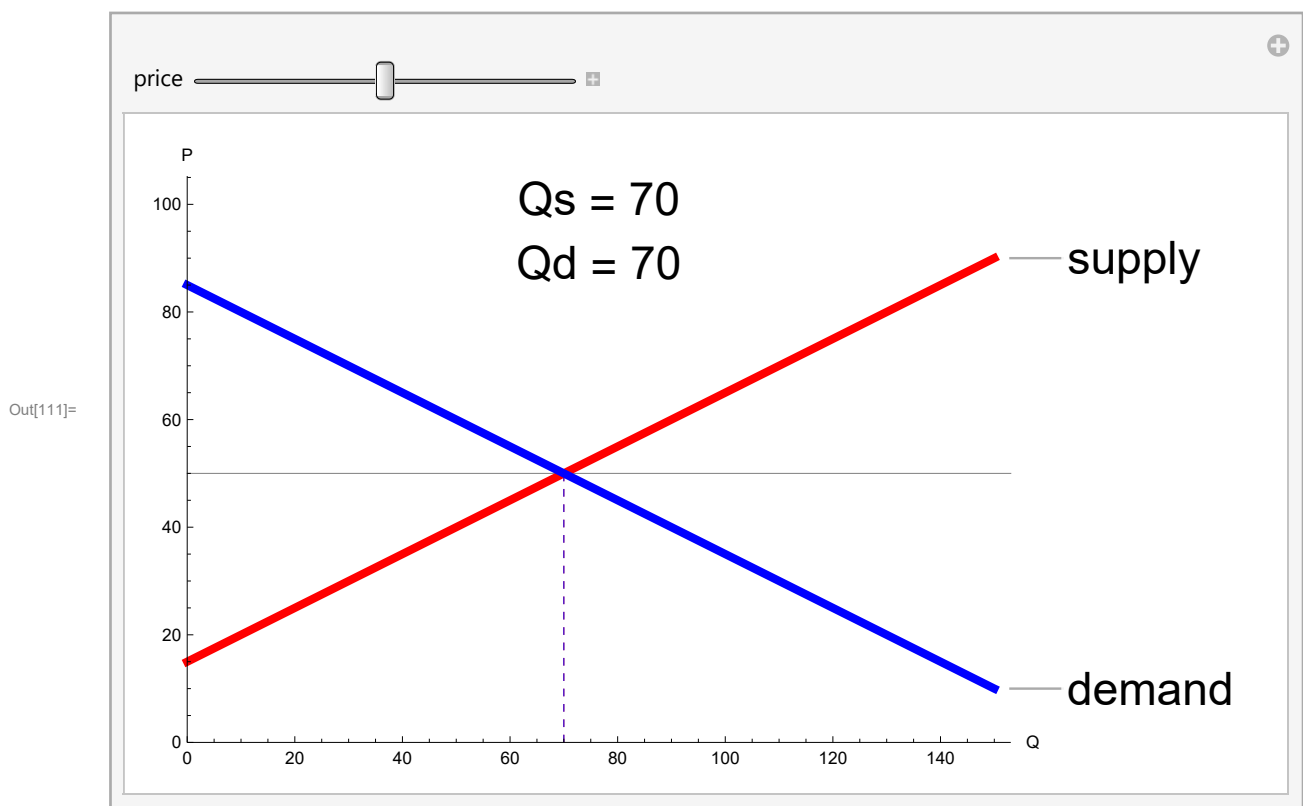
This is a situation of shortage.

There is upward pressure on the price.

When $Q_s = Q_d$ at the current price, there is no pressure on the price.

Ceteris paribus, the price does not tend to change.

This is a situation of supply-demand equilibrium.



When Ceteris Paribus Fails

Changes in economic conditions shift the demand and supply curves.

Shifts of the Demand Curve

Factors that affect demand:

- Income
- Changing tastes or preferences
- Changes in the composition of the population
- Price of substitute or complement changes
- Changes in expectations about future

Types of Goods and Services

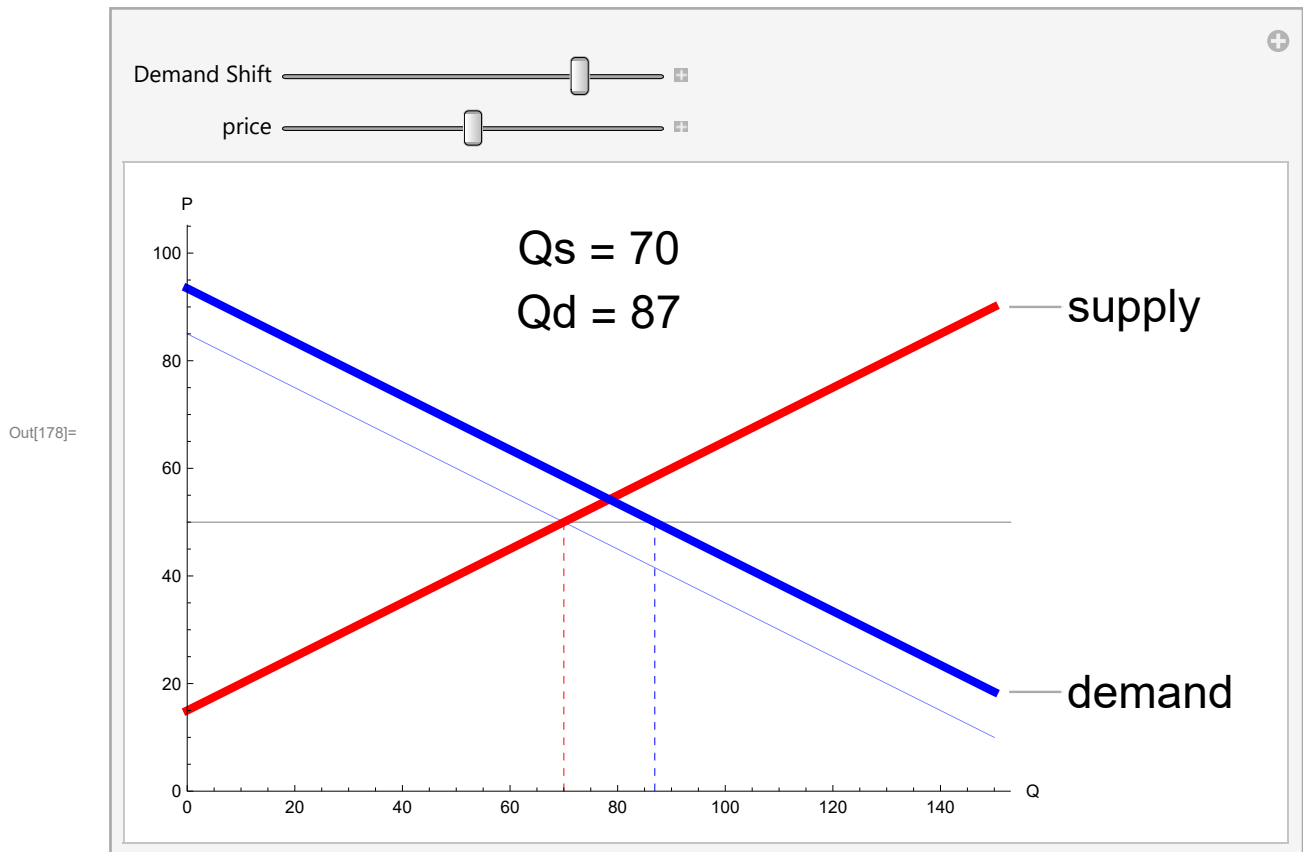
Normal vs. Inferior:

- Normal good - A product whose demand rises when income rises, and vice versa.
- Inferior good - A product whose demand falls when income rises, rises, and vice versa.

Substitute vs Complement:

- Substitute - a good or service that we can use in place of another good or service.
- Complements - goods or services that are often used together so that consumption of one good tends to enhance consumption of the other.

Graphical Analysis



Q: How would you analyze the effect of the internet on the demand for newspapers?

SD Comparative Statics: Four-Step Process

Four-step process to determining how an economic event affects equilibrium price and quantity:

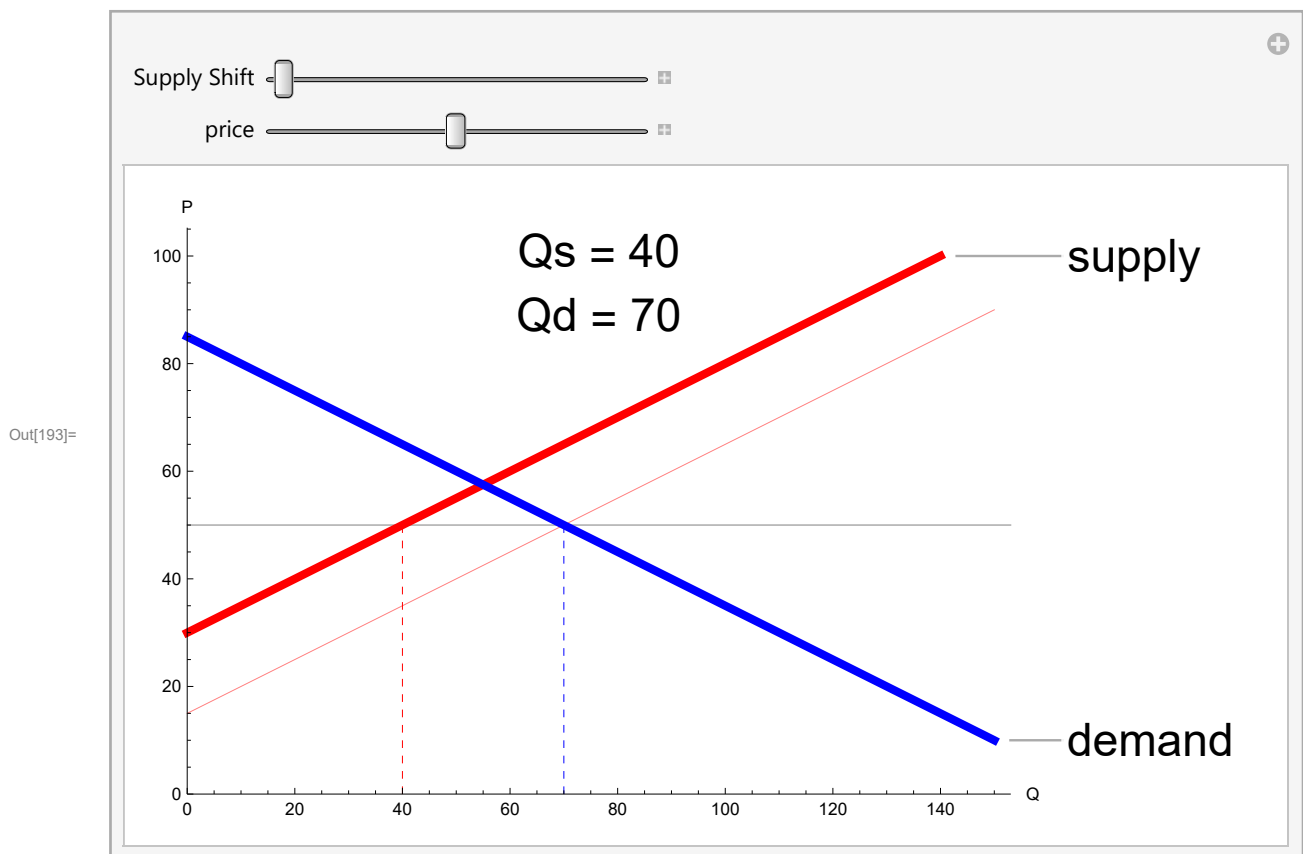
- Step 1. Draw a demand and supply model before the economic change took place.
- Step 2. Decide whether the economic change affects demand or supply.
- Step 3. Decide whether the effect causes a curve shift to the right or to the left, and sketch the new curve on the diagram.
- Step 4. Identify the new equilibrium and then compare to the original.

Shifts of the Supply Curve

Factors That Affect Supply

- Natural conditions
- Input prices
- Technology
- Government policies

Graphical Analysis



Q: How would you analyze the effect of good weather on the supply of salmon?

Multiple Shifts

Postal Service Example:

Increased costs of production (e.g., higher wages and higher fuel costs).

Reduced demand (due to new substitutes).

