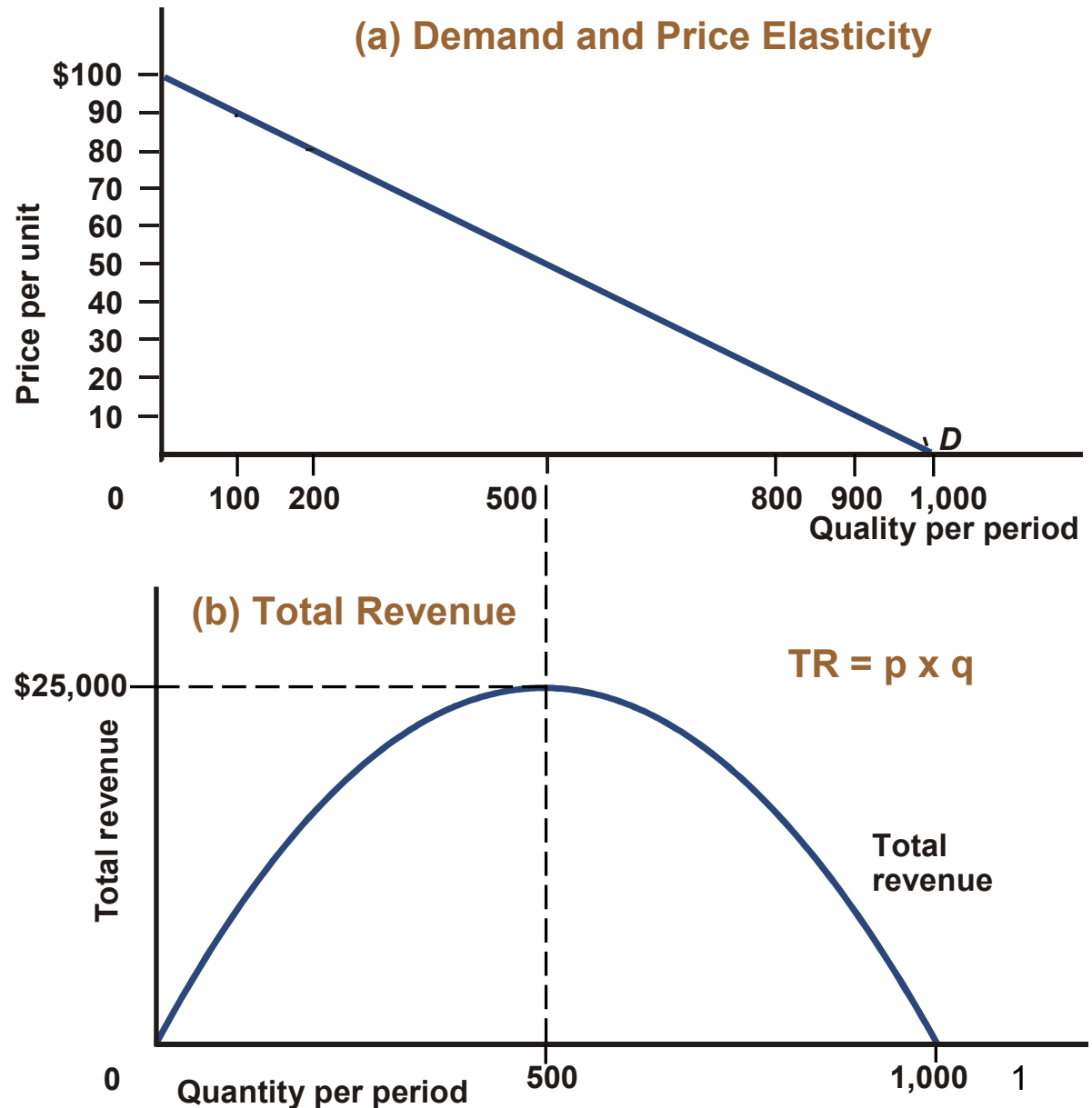


Demand, Price Elasticity and Total Revenue

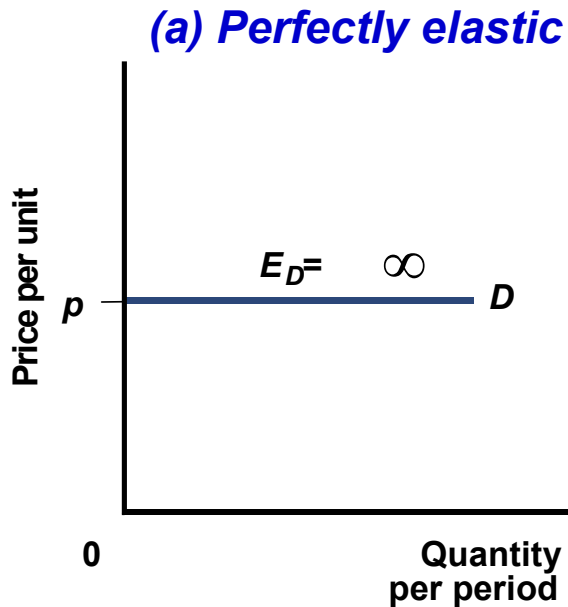
Panel (a) shows the linear demand curve and panel (b) shows the total revenue generated by each price-quantity combination along the demand curve.

Since the demand curve is linear, its slope is constant → a given decrease in price always causes the same unit increase in quantity demanded.

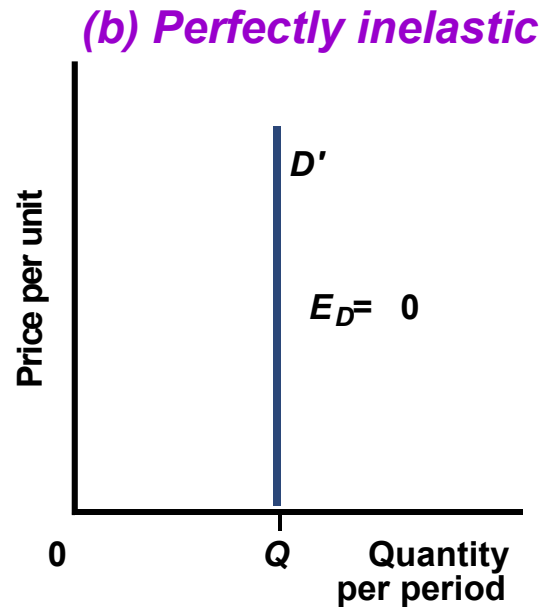
The price elasticity of demand is greater on the higher-price end of the demand curve than on the lower-price end.



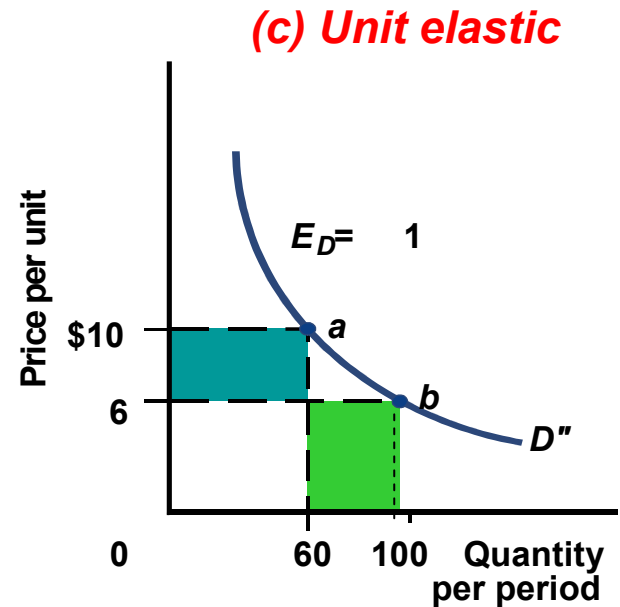
Constant Elasticity Demand Curves



Demand curve in (a) indicates consumers will demand all that is offered at the given price, p . If the price rises above p , quantity demanded drops to zero → **perfectly elastic demand curve**.



Demand curve in (b) is vertical, quantity demanded does not vary when the price changes → no matter how high the price, consumers will purchase the same quantity → **perfectly inelastic demand curve**.



(c) shows a **unit-elastic demand curve** where any percent change in price results in an identical offsetting percent change in quantity demanded.

Availability of Substitutes

- **The greater the availability of substitutes for a good and the closer the substitutes, the greater the good's price elasticity of demand**
- **The number and similarity of substitutes depend on how we define the good → the more broadly we define a good, the fewer the substitutes and the less elastic the demand**

Exhibit 5: Demand Becomes More Elastic over Time

Initial price = \$1.00

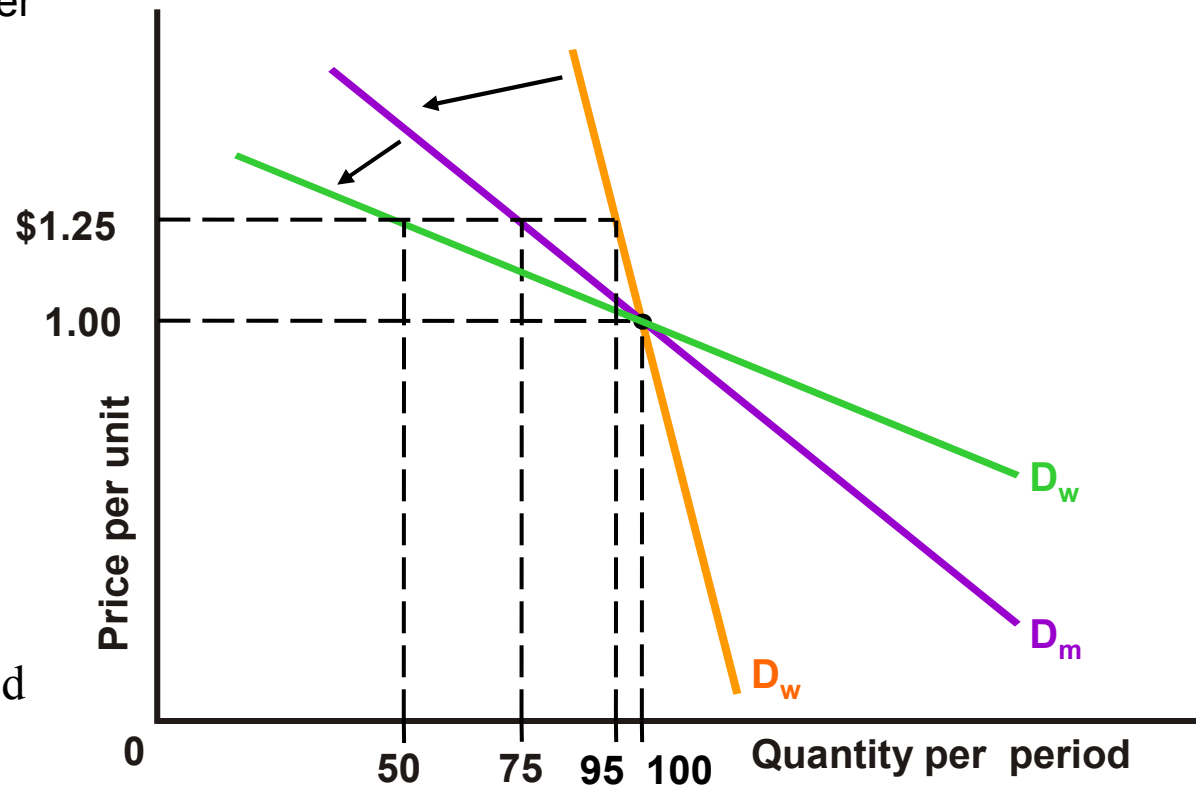
D_w = the demand curve one week after the price change

D_m = one month after

D_y = one year after.

Suppose the price now increases to \$1.25. The more time for consumers to respond to price increase, the greater the reduction in quantity demanded.

D_w shows that one week after the price increase, the quantity demanded has not changed much – in this case from 100 to 95 per day. Conversely, after one month, the quantity demanded has declined to 75, and after one year to 50 per day.



Note that among these demand curves and over the range starting from the point where the demand curves intersect, the flatter the demand curve, the more price elastic the demand.

Exhibit 6: Selected Price Elasticities of Demand

Product	Short Run	Long Run
Cigarettes (among adults)	—	0.4
Electricity (residential)	0.1	1.9
Air travel	0.1	2.4
Medical care and hospitalization	0.3	0.9
Gasoline	0.4	1.5
Milk	0.4	—
Fish (cod)	0.5	—
Wine	0.7	1.2
Movies	0.9	3.7
Natural gas (residential)	1.4	2.1
Automobiles	1.9	2.2
Chevrolets	—	4.0