Keith Chen and Freud

a) Mandatory markers for the future.

“Tomorrow it rains” or “tomorrow it will rain”?

High Savings – Low Savings

b) Societal context and the brain:

the simple goal of becoming rich honestly?

Simple goals, irrational agents?

Simple goals, irrational agents? Noisy traders

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Prices

Price?

(Relative) Prices or Exchange Value of a Good

The relative **price of a unit** of good (or service) expresses the so-called exchange value of the latter, which indicates

- the ability of a **unit** of the good (if we are in possession of it) to allow us to obtain other goods
  or
- (if we are not in possession of it) the measure of renunciation of other goods that we **must** accept to purchase **a unit** of the good in question.

If the price of a pair of sports shoes is 120 euro and that of one chicken is 40 euro, the ratio between the price of the pair of shoes and that of the chicken, also called the relative price of a pair of shoes in terms of a chicken, that is 3, tells us that by possessing 1 pair of shoes we can acquire 3 chickens or that, to buy 1 pair of shoes **we must give up** 3 chickens.

Formally, the price of a commodity A in terms of the price of good B, or relative price of good A in terms of good B, (P_A/P_B) is the amount of good B that we have to give up to obtain a unit of good A.

Prices ?

A mechanism for allocating (scarce) resources

What forces determine Price?

Use value

«the importance that the good assumes for us, for the fact that, in meeting our needs, we are aware of depending from the availability of such goods»

Menger, 1892

Smith's paradox

?

1 kilo

1 liter

Costs matter?

1 liter

?

1 liter

Costs matter?

>>

1 watch

1 concert

Costs matter?

<<

1 watch

1 concert

Use value matters?

1 liter

?

1 liter

Mistery solved!

Exchange value of 1 unit (price)

=

A (specific) concept of use value of 1 unit

=

A (specific) concept of the cost of 1 unit

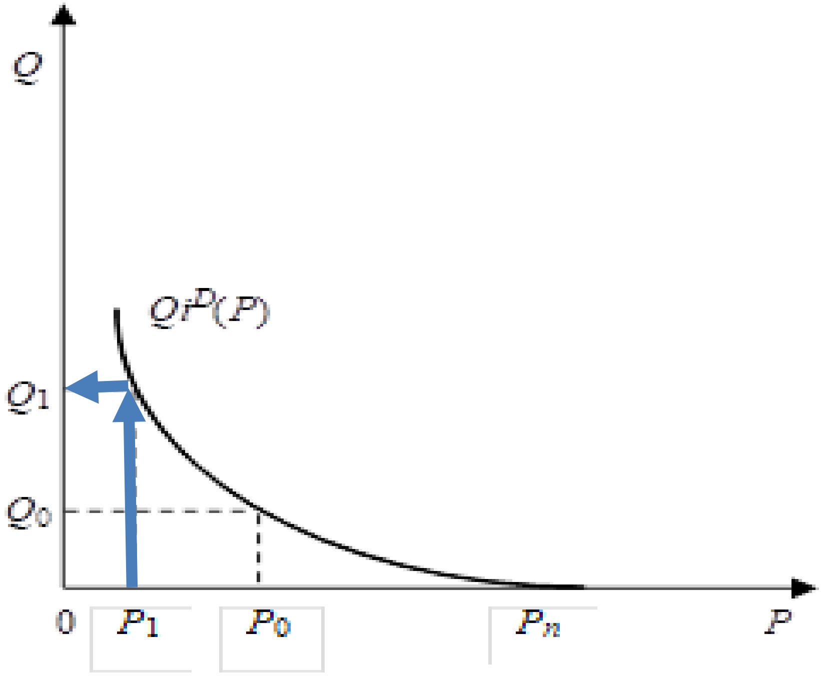
A Direct Demand Curve of Individual «i»

At price P_1 John desires to buy Q_1 units of good Q.

~~At price P_1 John buys Q_1 units of good Q.~~

At price P_1 John buys Q_1 units of good Q if there is somebody willing to sell them to him.

Q_i^d (P)



John (i)

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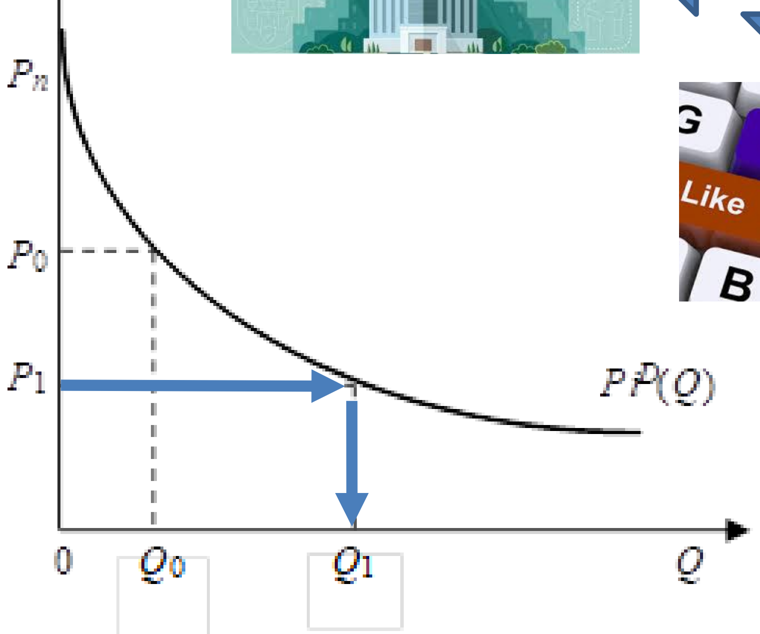
An Inverse Demand Curve

$P_i^d\ (Q)$

The (inverse) demand curve of an individual for good Q with respect to price tells us **for every possible price** how many units John (i) desires to buy of good Q.

The risk of reading it from Q to P…

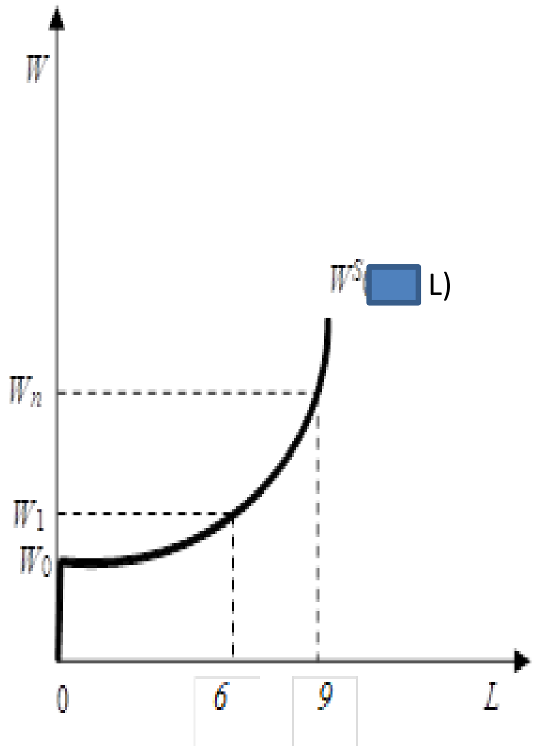
John, (i), again



By the way

I often ask **during the exam**: *can you build for me a demand curve*? Many students immediately draw Fig. 2, some draw Fig. 1. They are both right, but then I will ask them: ok, *but where does that demand curve you just drew come from*? *Why did you draw it this way and not slightly different*? We will learn during these chapters that when I ask you to build a demand curve, **the last, not the first, thing you will draw is Figure 2**. Before that you will take your time to show me what we will slowly learn in Chapter 2 and 3, i.e. **how to build a demand curve**.

Another Inverse Demand Curve



The individual supply curve of labor tells us **for every possible wage** how much Jane desires to supply of her leisure time (and therefore how much she desires to instead demand for herself).

A **daily** Labor (L, hours) inverse **Supply** curve of a worker, Jane, W^s (L)

Wage per hour = W = price of leisure H

Can you draw her inverse daily **leisure** W^d (H) **demand curve**?

For $W = W_1$ what is H? and for $W = W_n$?

Hint 1: there are 24 hours in a day

Hint 2: (24-6) and (24-9)…

Opportunity Cost

Note that in each choice the individual decides to give up on something for what she chooses.
The highest value of what we give up when we make a certain choice is called the opportunity cost of that choice.

Our every choice (free time, savings, consumption of a good, request for services by a factor of production) implies a cost due to a renunciation that we do simultaneously (the wage, consumption today, the price of the good, the remuneration of a factor of production instead).

An Inverse Demand Curve

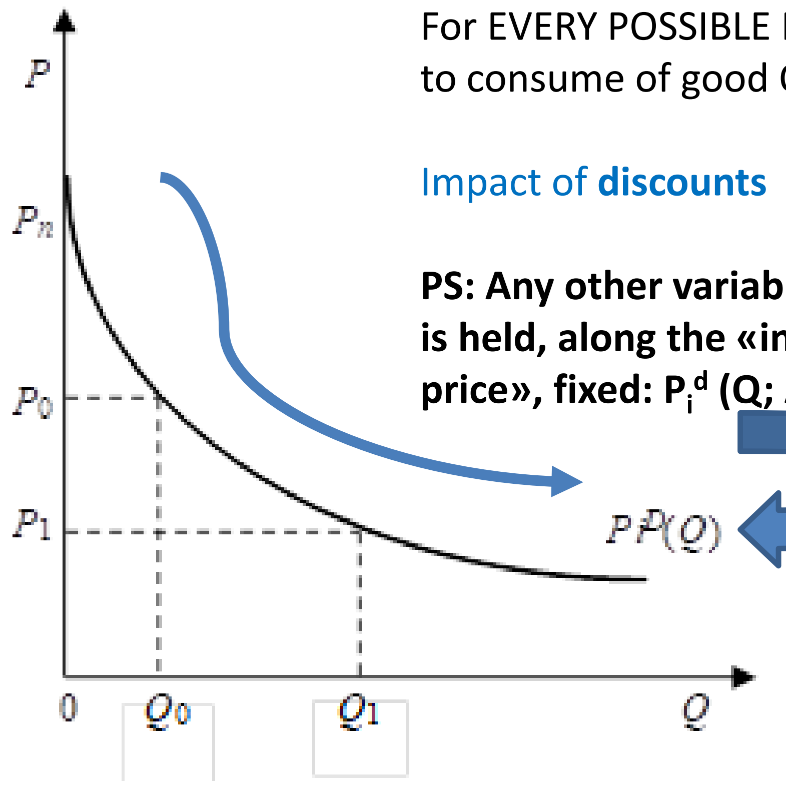
Movements **ALONG** the inverse demand curve:

For EVERY POSSIBLE PRICE P, how much this individual desires to consume of good Q.

Impact of **discounts**

PS: Any other variable that impacts on desired consumption is held, along the «inverse demand curve with respect to price», fixed: P_i^d (Q; A°, B°, C°,D°…)

The (inverse) demand curve of an individual for good Q with respect to price tells us **for every possible price** how many units John (i) desires to buy of good Q.



But doesn't individual demand also depend on ….

P_i^d (Q; …, …, …, …)

P_i^d (Q; taste$_i$°, …, …, …)

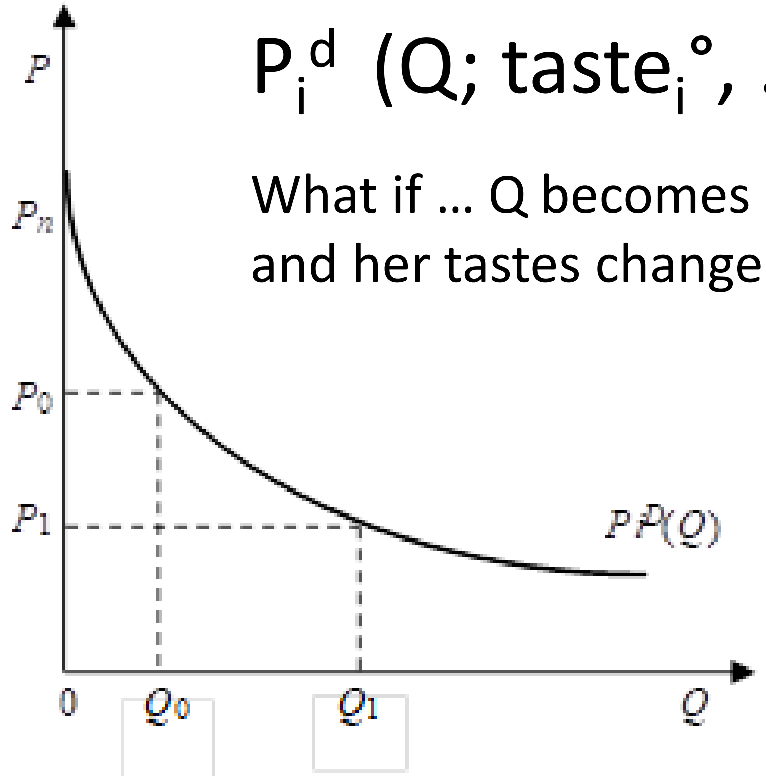
P_i^d (Q; …, income$_i$°, …, …)

P_i^d (Q; …, …, …, rival goods°)

P_i^d (Q;…, …, …, …, complementary goods°)

P_i^d (Q; …, …, …, …, P of other goods°)

What happens to Inverse Demand Curve if…

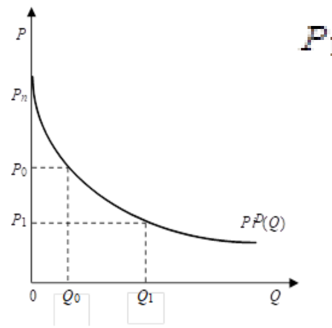


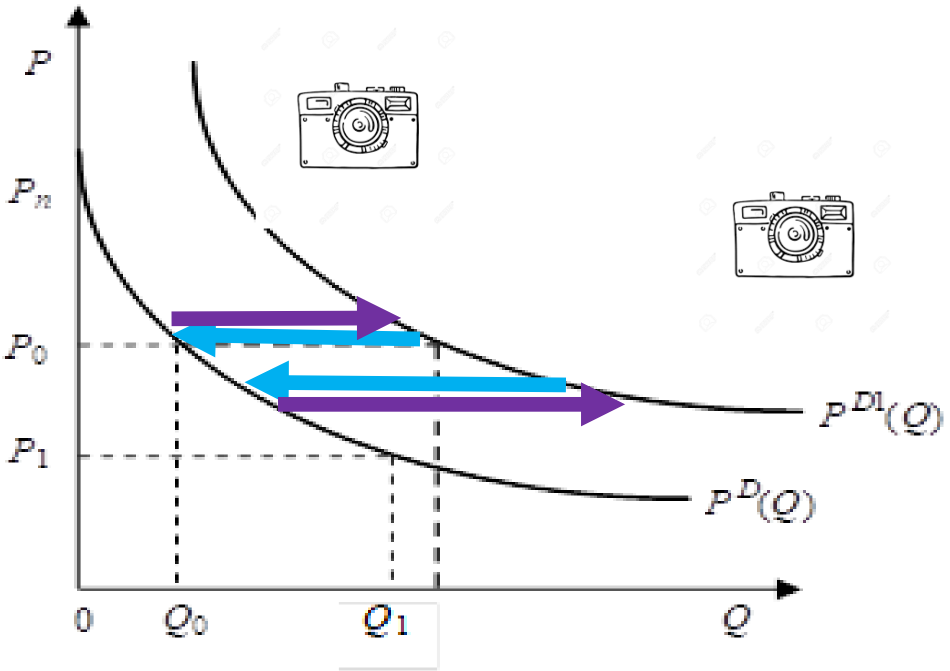
P_i^d (Q; taste$_i$°, …, …, …)

What if … Q becomes more fashionable for «i» and her tastes change to taste 1_i?

What happens to Inverse Demand Curve if…

From P_i^d (Q; taste$_i^{\circ}$, …, …, …) to P_i^d (Q; taste$_i^1$, …, …, …)





Movements NOT «along» the curve but … «OF» the curve.

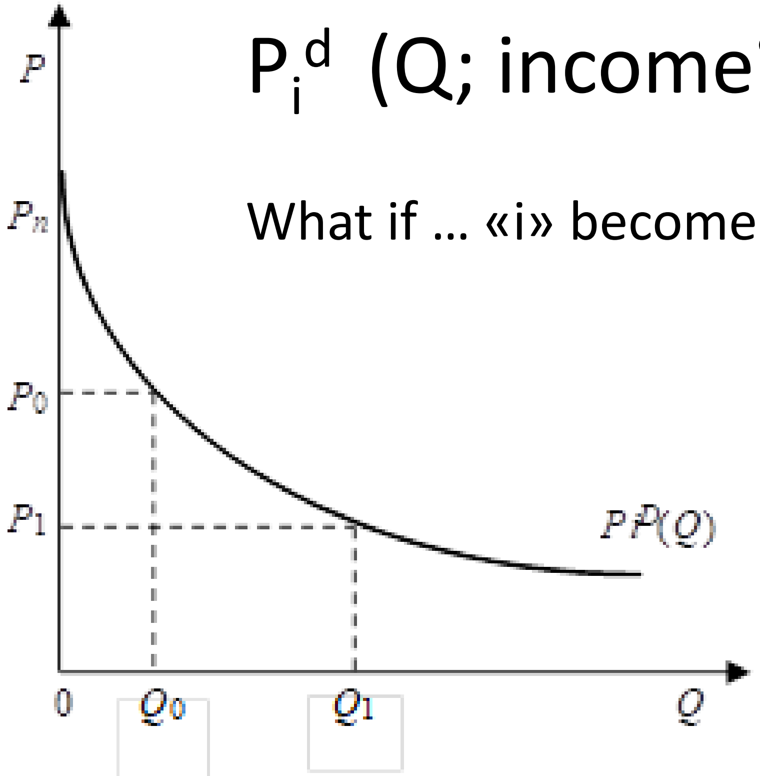
Impact of taste change?

Coronavirus: demand of «masks»

Mad cow disease: demand of «beef».

What happens to Inverse Demand Curve if…

The (inverse) demand curve of an individual for good Q with respect to price tells us **for every possible price** how many units John (i) desires to buy of good Q *when her/his income is …. .*



$P_i^d\ (Q;\ income°_i\ \ldots,\ \ldots,\ \ldots\ )$

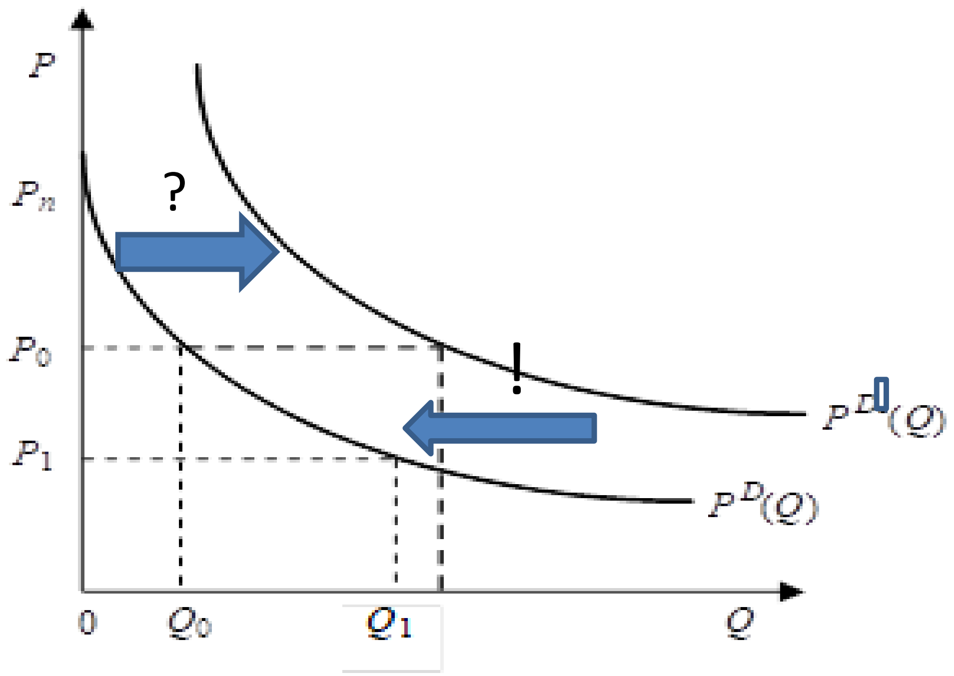
What if … «i» becomes richer?

What happens to the Inverse Demand Curve if…

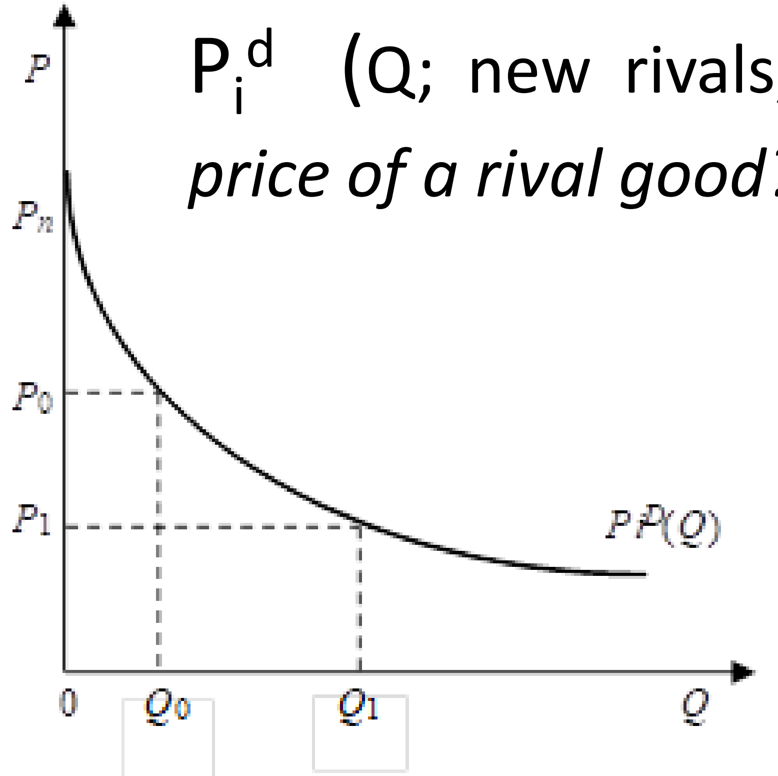
From P_i^d (Q; $income_i^\circ$, …, …, …) to P_i^d (Q; $income_i^1$, …, …, …)

With $income_i^1 > income_i^\circ$

What strategy is needed by the firm?



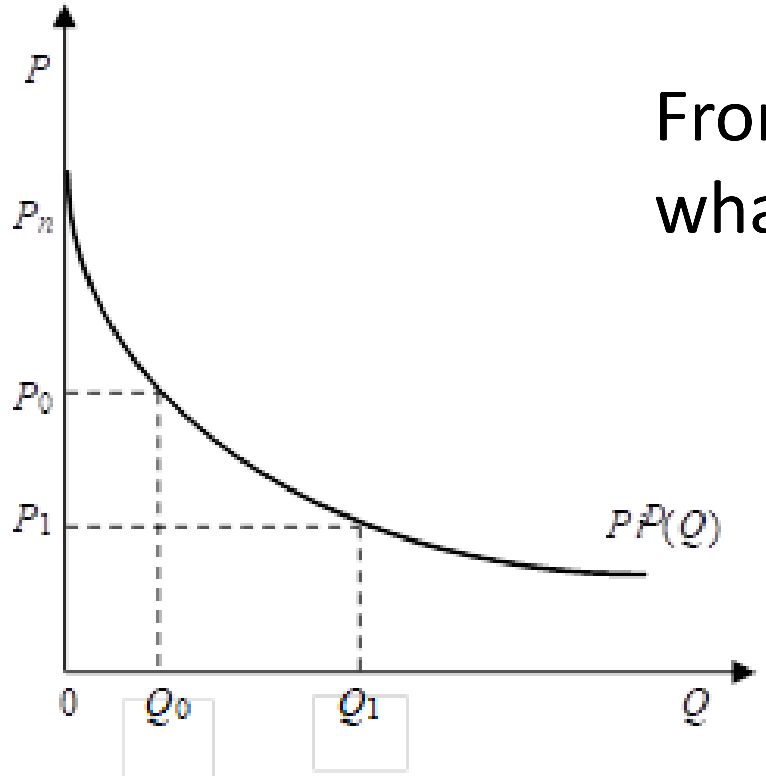
What happens to Inverse Demand Curve if...



P_i^d (Q; new rivals, disposed complements, *price of a rival good?*)

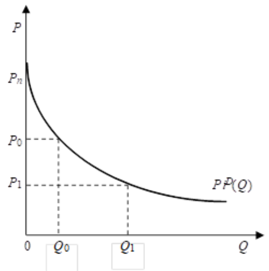
The demand curve of Smarts for a given price of Fiat 500

PS: Oligopoly



From P0 to P1,
what will Fiat do?

Fiat and Smart



Price of Smart ↘

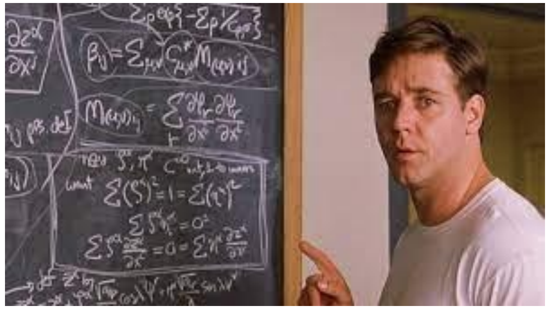
Price of a Smart ↘

Fiat production constant

Price of Fiat ↘

Price of Fiat constant

Production Fiat ↘



The information content of the consumer demand curve for the firm

Revenues and Revenue function

$$\text{Total Revenues} \equiv TR \equiv P \times Q$$

$$TR\ (Q) \cancel{=} P \times Q$$

$$TR^f\ (Q) = \mathbf{P^d(Q)} \times Q$$

$$\text{Total Expenditure} \equiv TE \equiv P \times Q$$

btw…

$$TR^f\ (Q) = TE^c\ (Q) = = \mathbf{P^d(Q)} \times Q$$

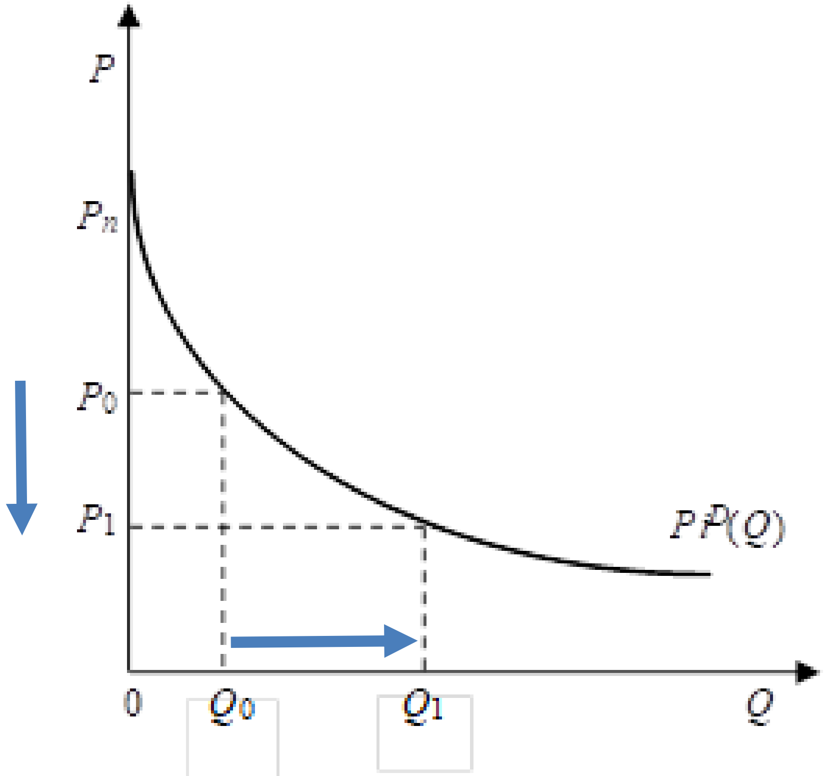
By the way

Sometimes students say that revenues are expressed in terms of quantities.
No, they are expressed in units of account, for example euro.
So if at price of 6 euro per unit I sell 2 units, my revenues from these 2 units, the amount of euro I receive from the consumer, is 12 euro:
TR (Q=2) = 12 €
TR (2) = 12 €

$$P^d_i\,(Q) = 10 - 2\,Q$$

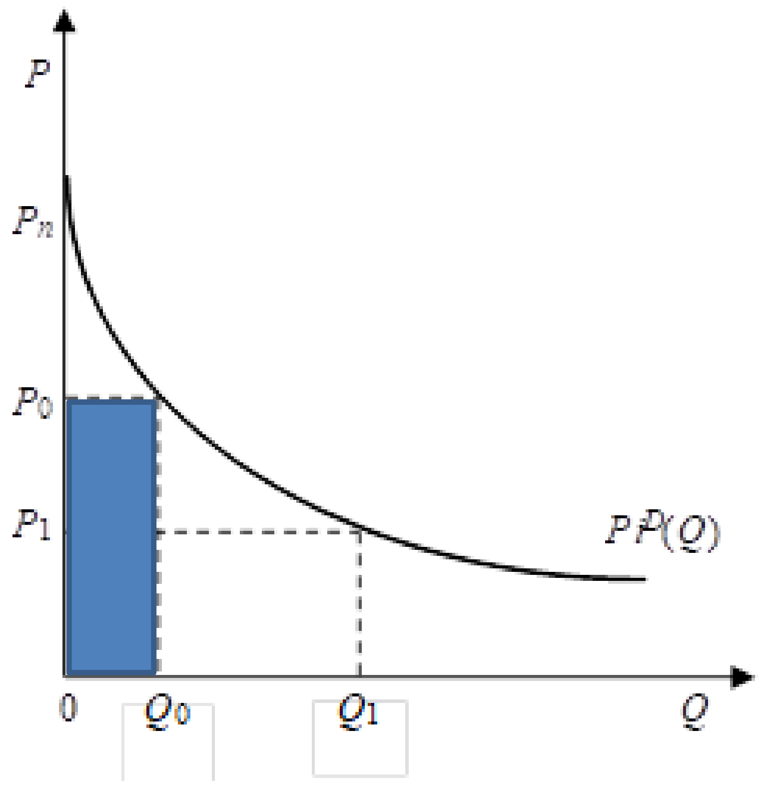
But how do revenues change with the change in quantity?

The revenue dilemma, from Q0 to Q1=Q0+1

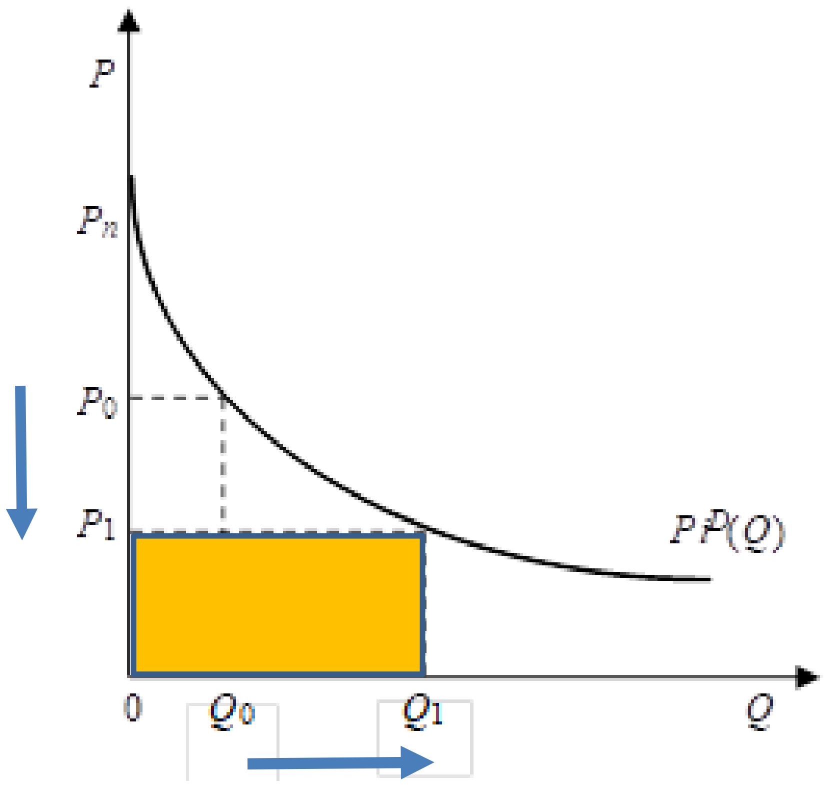


Imagine a monopolist and her demand curve

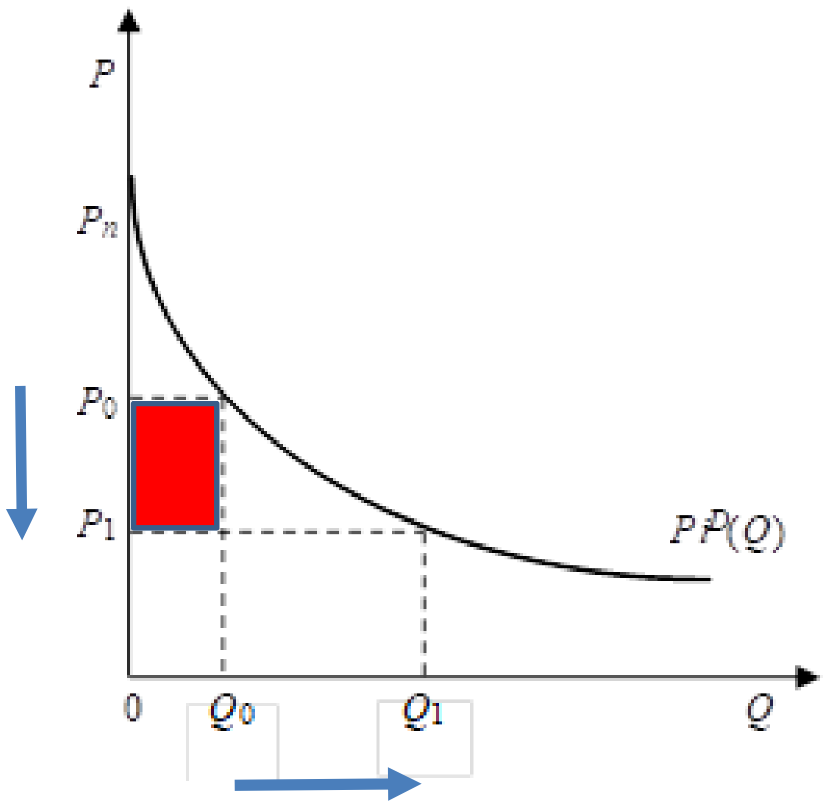
The revenue of selling Q° (at P°)



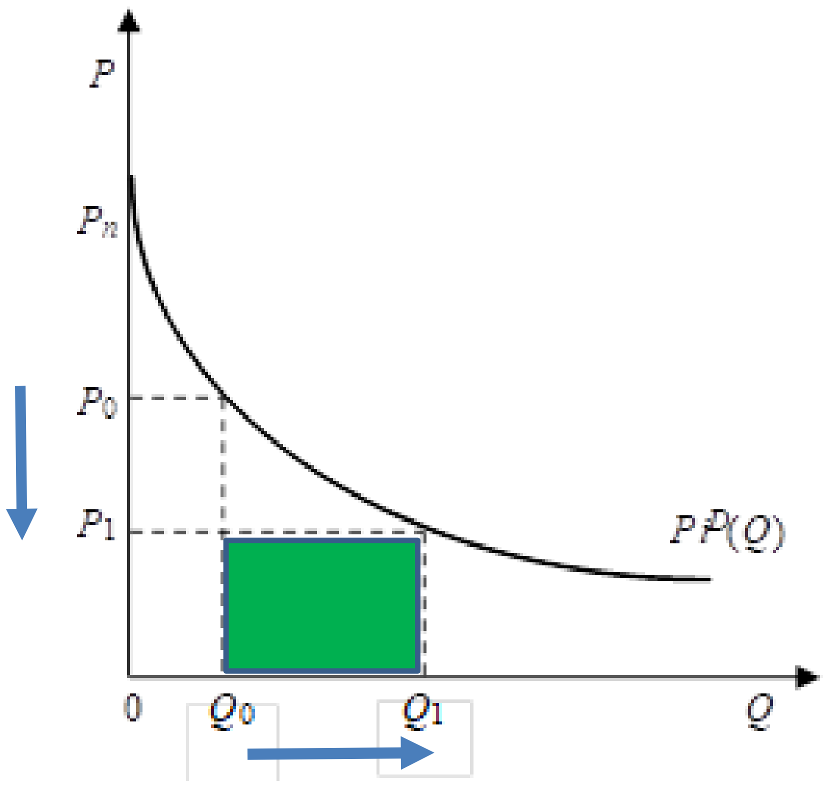
The revenue dilemma, from Q0 to Q1=Q0+1



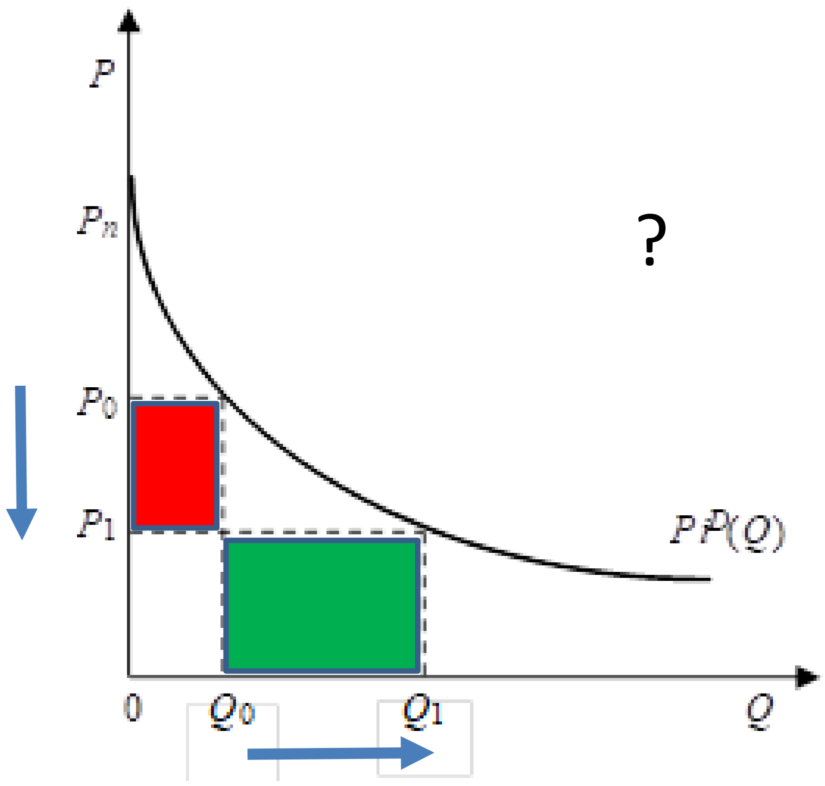
The revenue dilemma, from Q0 to Q1=Q0+1



The revenue dilemma, from Q0 to Q1=Q0+1



The revenue dilemma, from Q0 to Q1=Q0+1



The entrepreneur cares about the demand curve

$$P^d_i\,(Q) = 10 - 2\,Q$$

An example

$$P^d_i\,(Q) = 10 - 2\,Q$$

$$2Q = 10 - P$$

$$(2Q/2) = (10/2) - P/2$$

$P = 6 \quad Q = ?$

$P = 10 \quad Q = ?$

$$Q^d_i\,(P) = 5 - (½)\,P$$

What happens to revenue as we sell more units?

$$P^d_i\,(Q) = 10 - 2\,Q$$

$$Q^d_i\,(P) = 5 - (½)\,P$$

$Q = 1$

$P = ?$

$TR\,(1) = 8$

$Q = 3$

$P = ?$

$TR\,(3) = 12$

$\Delta Q = +2$

$\Delta P = -4$

Is there a rule of thumb that helps me in understanding the shape and behavior of the revenue function, TR(Q)?