

## Prices and their Valences in Economy

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**Abstract:** *In theory and in practice economic prices present a number of facets and features that stand out and are valued at length especially involving market mechanisms. Through these there are measured both expenditure and economic results, there are ensured recovery of revenues, making a profit, it is realised the exchange of goods, there is ensured the redistribution of producers and consumers' incomes there is achieved the regulation of production and consumption, it is ensured the stimulation or discouraging of entrepreneurs. In the absence of prices, the exchange of goods would be very difficult to study and know. The price function as an exchange tool is closely related to the money function as a means of exchange. They are able to reflect equivalent exchanges of goods only if they are the faithful expression of the value of goods measured by manufacturer's point of view and of work charges, but also from the point of view of the consumer - and of goods and services utility.*  
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### Introduction

Prices presents a whole range of meanings that stands out and is recovered extensively especially in economic practice. Thus, through them there are measured both expenditures and economic outcomes, it is ensured the recovery of expenses from income and (eventually) the obtaining of a profit, it is realised the exchange for goods, it is ensured the redistribution of producers and consumers' incomes, it is achieved the regulating of production and consumption, it is ensured the stimulation or discouraging of entrepreneurs etc.

The main valence of price results from its definition: *it enables knowledge (in cash) of the size of the value of the goods* (both in terms of consumption work recognized as necessary, under the circumstances, by the market, and from the point of view of the real usefulness recognized on the same market). Without them it would be virtually impossible to know that.

Used to measure the value of goods, prices also serve *to homogenizing and measuring the results (effects) of human actions*.

### 1. The Production Process Results

As is known, the production process results can be presented in different physical forms which make it impossible the operation to aggregate them. Given that prices are known, the homogenization and their measurement can be made on the basis of a relationship of the form:

$$P = \sum_i q_i p_i,$$

where:

- P - total output in monetary units (the result of the production);
- q - collating and physical production;
- p - commodity price and assortment.

In order to exploit this valence, prices should reflect as closely as the real value of goods and be set for each product and the same.

If the results of the work take the form of revenue (V), prices highlight their value and quality of *income measurement tool*, in which case it is used a similar relation, such as:

$$V = \sum_i q_{vi} p_i,$$

where:  $q_{vi}$  - the actually sold production assortment  $i$ .

The disparities that may exist between supply and demand generate differences between the production manufactured and sold, sizes P and V getting different values also.

On the other hand, prices *offer the opportunity to measure costs* through which there were yielded the results of the production. Because the fact that resources consumed in the same production process are extremely heterogeneous in terms of forms, their summation is possible only after being homogenized by the purchase price based on a relationship like this:

$$C = \sum_j r_j p_j,$$

where:

- C - production costs;
- $r_j$  - type resources  $j$  consumed in the production process;
- $p_j$  - the price of  $j$  type resources.

The resources taken into account are, in turn, results of previous production processes, which amounts are denominated prices.

Serving to measure the results and costs, prices also allow *the measurement of the efficiency of production*, which is assessed using the difference between the results and expenses (i.e. net revenue) or on account of the relationship between such elements according to relations:

$$V_n = V - C = \sum_i q_{vi} p_i - \sum_j r_j p_j;$$

$$e = \frac{V}{C} = \frac{\sum_i q_i p_i}{\sum_j r_j p_j},$$

where:

- $V_n$  - net income;
- $e$  - the coefficient of economic efficiency.

If evaluations submitted are possible (through prices) to *producers*, they are achievable and at the *consumer* level.

Thus, appropriate consumption of each commodity  $i$  made by a person at a time or in a certain period, total expenditure is determined bowing their prices  $p_i$  based on a relationship of the form:

$$C = \sum_i q_{ci} p_i,$$

where :  $q_{ci}$  - the amount of merchandise assortment  $i$  and which was the subject of consumption.

Also the result of consumption (total utility or satisfaction obtained from it), to the extent that prices are *the monetary expression of value-utility* consumed, it can be estimated in the same way (using the same relation):

$$S = \sum_i q_{ci} p_i$$

where: S - the monetary expression to consumer satisfaction actual consumption.

In all cases examined, the prices expresses measurement capability only if the principle of *equal prices for goods of equal value*.

Very closely with those already seen prices exerts its function *and cost recovery revenues* (to the extent that is above unit production costs).

According to the level and structure of their prices are reflected both production costs and revenues (results) obtained by the manufacturer, is known relationship:

$$P = c_p + P_{fn},$$

where:

- p - the price;
- $c_p$  - unit cost of production;
- $p_{fn}$  - normal profit of the entrepreneur.

As long as production activity reflects the manufacturer's rational behaviour through price it secures recovery of expenses  $c_p$  from revenue received ( $p$  is actually produced by the *unit revenue* from the sale of each unit of cargo) and a profit. Otherwise (if producing goods with spending too much or more than the demand), whether prices are prevented from fully capitalize on this ability and whether you totally lose it. Hence the importance that should be given to studying economic agents and knowledge of the law of value, the price formation mechanism, and demand and supply implications on prices, production costs substantiation prices etc.

Therefore, when analyzed against the unit product costs, prices can be a true barometer of efficiency of production.

In the absence of prices, *the exchange of goods* would be very difficult to study and know. The price function as *instrument of exchange* is very closely linked to the function of money by means of exchange. They are able to reflect the equivalent exchange of goods only if they are faithful expression of the value of goods (assessed through consumption manufacturer and employment, but also from the point of view of the consumer - and utility). As seen (some time ago) I Rachmuth, there are countless situations in which more goods products to meet certain needs are equivalent in terms of the amount of work that includes, but is not equivalent in terms of their usefulness. Therefore, prices may not manifest as *an instrument of trade equivalent* unless they comply with both the principle of "equal rates to equal work consumption" and the "equal prices equal to equal utility". For instance, the amount of coal extracted in a day's work (simple) 8 hours (which is denoted by  $Q_c$ ) makes labour productivity in the energy industry to be at a certain level (200 kwh, say). In parallel, the amount of gas extracted all within 8 hours of simple work (which is denoted by  $Q_g$ ) will lead to productivity in the energy industry located at another level (600 kWh). Accordingly, the amount of coal extracted with consumption of eight man-hours work will be simpler than the value of natural gas extracted with consumption of eight man-hours work simple. However, from the point of view of consumers (energy industry), utilities of the two quantities are very different energy sources (allowing energy production 3 times higher natural gas utility is 3 times higher than that of coal. Therefore, it will be willing to pay the gas supplier a price 3 times higher (which obviously will be accepted by it), realizing the transaction at this price. Is such action annulled law of value (that the goods sold at a value determined by the socially necessary labour time of their occurrence)?

Somewhat paradoxically, the answer to this question can be negative. Differentiated pricing for the two categories of goods is justified from the point of view of the labour theory of value. Thus, in order to obtain the 600 kwh electric energy, different manufacturers need to buy or the quantity  $Q_g$  of natural gas or coal amount equal to  $3Q_c$ . From his point of view, the value created by a worker that extracts methane gas is equivalent to the value created 3 workers who extract coal. In other words, each new worker extraction of methane gas drawn corresponds to a net savings of two workers from the extraction of coal. On the other hand, if there was no option of using methane gas to increase electricity production from 200 kwh to 600 kwh (3 times), the employee in energy would have to hire two more workers, working consumption tripling.

Therefore, to ensure the exchange of equivalent prices (such as methane gas, in this case) can deviate from the value and utility of the products reflecting (expressed through economies of abstract labour), enabling bringing Useful effects common denominator in the various products.

The fact that the two goods are changing each other to a certain extent (which defines the exchange value) allows us to conclude that such a thing is possible because their price is common (while) the terms labour and utility consumptions / what convergence theory suggests prices).

There is the possibility that prices deviate from the value (even intentionally), it takes on a new valence, which may serve as a *tool of income redistribution* (including national income).

In principle, *the aggregate price of commodities is equal to the amount of income that their buyers have and the amount of income on which their producers derive* from their sale. This is unquestionably a closed economic system (as can be judged either system) and in a well-defined period of time (leaving aside the phenomenon of saving and lending). This being so, by price, revenue to certain categories of producers or consumers can only increase in other categories where the income decreases (and vice versa), their sum remains *constant*. In other words, the sale of goods at prices higher than the value is not possible (economy-wide) than others by selling at lower prices – *the sum price must be equal to the sum of goods*.

Whenever buyers who have limited income and constant (at a time) are forced (by the overwhelming needs that have to be met) to buy some goods at prices above their value, they will also be forced to give up (wholly or partly) to other goods. For the second category of goods can be sold, it is necessary to reduce their prices. Also, when the price of goods are brought (also willingly) by the emoticon that competent decisions about them at levels lower than the consumers remain some disposable income, and could guide them to goods whose prices climbed above the value. The same is true for producers. In this way there is a transfer of income from one category of producers (or consumers) to another. Those who pay higher prices than transmit a portion of their earnings to those who buy goods at a price lower than the value.

## 2. Revenue Through Price

The mechanism by which this transfer occurs revenue through price can be illustrated graphically on a example. Suppose then that we had to do only two groups of producers:

- a) The goods I (industrial) products in an amount of 1 000 units (in full compliance with the solvent demand), at a price (located on the amount) of 400 m.u. the piece;
- b) A goods (agricultural) products (all in accordance with the application solvent) in an amount of 2000 units at a price (in the value) of 100 m.u. the piece.

Under these conditions (balance between supply and demand), the sum of prices for all production of the two categories of goods will be:

$$1000 \times 400 \text{ pieces products I m.u.} + 2000 \text{ pieces per unit product A} \times 100 \text{ m.u. per unit} \\ = 400\,000 \text{ m.u.} + 200\,000 \text{ m.u.} = 600\,000 = \text{total value of goods m.u.}$$

In order to be sold, the total income of the buyers will have to be (and will be) of 600 000 m.u. After sales revenue of industrial producers will get:

$$1000 \times 400 \text{ pieces products I m.u. per unit} = 400\,000,$$

and farmers incomes:

$$2000 \times 100 \text{ pieces products m.u. per unit} = 200\,000 \text{ m.u.}$$

Suppose now that someone (state, let's say), considering that farmers should be supported, would have fixed the price of the products A at the level of 150 m.u. the piece. Therefore, to obtain the 2000 pieces of product A buyers will spend revenues in the amount of:

$$2000 \times 150 \text{ pieces m.u. per unit} = 300\,000 \text{ u.m.}$$

Of the 600 000 m.u. total revenue for purchasing products I will remain:

$$600\ 000\ \text{m.u.} - 300\ 000 = 300\ 000\ \text{m.u.},$$

demand (in monetary units) being also forced to reduce at the level of 300 000 um (at the level of disposable income). In order not to remain with unsold goods, commodity producers I will be

forced to reduce the price to 400 m.u. the piece to  $\frac{300\ 000}{1\ 000} = 300$  m.u. the piece.

If it would resort to price reduction on the 300 000 m.u. the remaining revenue, might just sell  $\frac{300\ 000}{400} = 750$  commodity items I.

Compared to the initial situation, commodity producers I experience a decline in revenues from 400 000 m.u. to:

$$1000\ \text{pieces} \times 300\ \text{m.u. a piece} = 300\ 000,$$

respectively with:

$$400\ 000\ \text{m.u.} + 300\ 000\ \text{m.u.} = 100,000\ \text{m.u.}$$

Given that it would not sell 250 of the 1 000 pieces commodity I, the loss of income would be the same:

$$250\ \text{pieces I produced} \times 400\ \text{m.u. per piece} = 100,000\ \text{m.u.}$$

At the same time, farmers will see an increase in revenues from 200 000 m.u. to:

$$2000 \times 150\ \text{pieces m.u. per piece} = 300\ 000\ \text{m.u.},$$

i.e. the same of 100 000 m.u.

### Conclusions

So, by increasing the price of products from A from 100 m.u. to 150 m.u., it makes a transfer of income from the agricultural to the industrial producers of 100 000 m.u.

A similar transfer of income occurs and at the level of consumers. Thus, if the two categories of goods buyers would be totally different from baseline balance (the revenue for goods I are 400 000 m.u., and those for A goods, of 200 000 m.u.) after A goods becoming more expensive by 50 m.u. the piece, buyers will purchase goods A at the genuine value of 200 000 m.u. with incomes of 300 000 m.u., and consumers of goods I will buy 300 000 m.u. goods income at fair value of 400 000 m.u. Thus, an amount of 100,000 m.u. revenue will be transferred from the buyers of goods A to those of goods I.

Although sometimes justified such income transfers through price-fixing are not economically equitable.

By the same kind of pricing policy, they acquire the ability to *adjust the size of production and consumption*. Thus, under conditions identical to those envisaged something before, the same price change operated type A products will make sizes to increase agricultural production (from natural desire of entrepreneurs in this area to earn more) while the size of industrial goods consumption also increases (which are natural effects of supply and demand influence prices).

Absolutely the same position can be explained by price ability to perform as *a tool of material incentives to producers*. According to the law of supply (between price and demand that there is a direct proportion), fixing prices at levels higher value of their goods will interest the producers to increase supply.

As long as the State can intervene in the price formation mechanism, setting levels that deviate from the value of goods he could use *as leverage rates and economic and social policy* (influencing consumption of scarce resources, the distribution and redistribution of income, the ratios between branches and sectors of the economy, the interest of traders to quality and performance, etc.).

According to the law of supply between the supply of a certain commodity and the price at which it sells there is a direct proportion. From here inverse correlation can be drawn: if the offer affects the price level no less true that price also influences the supply. Hence, the *price is actually a mechanism for regulating the production and supply of goods*. This happens naturally in any liberal economy where the state does not intervene in the price formation mechanism, by automatically adjusting production through prices and an economy in which the state has such interventions. Fixing (some goods) prices above the value, the offer will be stimulated by measures contrary to the offer being discouraged.

On the other hand, the law demand, prices may prove to be *demand adjusting tools*. So any price increase will result in discouraging demand, as any price increase will stimulate.

Being the result of the ratio between aggregate demand and aggregate supply, prices acquires the ability to adjust operation of the entire economic mechanism based on the market, being their *basic valences*.

#### **Supplementary recommended readings**

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