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HISTORY OF THE THEORIES OF VALUE AND PRICE – PART I[i]

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1. Introduction

For a long time, the history of economic thought has taught that Adam Smith was the father of political economy. Subsequently, this idea was abandoned as the writings of some previous thinkers were examined. It is actually very difficult, perhaps impossible, to put a date to the birth on a science. Anyway, to do some justice to the Scottish thinker, it is with Adam Smith that political economy began to gain scientific importance.

Economics was born in its distinction from morality and ethics; the economics profession is very recent. Adam Smith himself was a "moral philosopher." The first reflections on economic issues tried to answer the following questions: What is the *just* price? Is it fair to charge interest on a money loan? Is trade lawful? The first reflections on economics did not answer the questions: What is a price? How is a price determined? What worried the early thinkers was justice. Economic issues were a part of long treatises on justice and ethics; more specifically, the economic issue was justice in the exchanges that occurred.

The issue of the relationship between value and price was the first pure economic issue to attract the attention of moral philosophers. Fair price and usury (or interest charging) were the most important in everyday life, so it is not surprising that they were the first to be approached by these thinkers. As they sought to give a more precise answer to what "fair price" was, thinkers were forced to answer the questions: What is it and how is a price determined? and why does the price of a good go up or down? Thus, theory was gradually introduced into the field of morality and justice. Little by little, economic theory grew until it became its own science that consisted only of cause-and-effect relations independently of moral judgments. It can be said that with *The Wealth of Nations* (1776), by Adam Smith, this separation was especially important, and, in this sense, we can say that this philosopher is the true father of political economy.

The problems of value and price were thus the first economic theory dealt with. These topics were at first burdened with many confusions, which is to be expected, being that they were the first examinations of these issues. Yet, as one of the things that this work will try to show, even today this issue continues to be suffused by many semantic and conceptual misunderstandings.

For this reason, before entering into the historical evolution of these theories, it is convenient to define terms in order to avoid further confusion. *Value* and *price* are not the same things, but they tend to be confused a lot, as happened also in the history of economic thought. In everyday use we usually ask, for example: what is the value of a pound of bread? How much is a house worth? what is the value of a car, etc., and the answer, for example: $3. Now, is $3 the value or price of the item? Are value and price the same thing?

As we shall see, from ancient times thinkers distinguished between *use-value* and *exchange-value*. We can define the use-value of a commodity as the satisfaction or pleasure that its possession gives to a person; and exchange-value of a commodity as the quantity of other goods that can be obtained in exchange for it. For example, a child's photograph may have a very high use-value for his mother and yet no exchange-value at all. Use-value and exchange-value are two very different concepts, although, as we will see, they are intimately related.

In this paper I identify value with use-value and price with exchange-value. Their determinants are different, and for that reason it is convenient to have them clearly separated analytically.

The theory of value must answer the question: what determines the degree of satisfaction or pleasure that the possession of a good gives to a person? Price theory must answer the question: what determines the quantity of a good that we have to deliver to obtain a unit of another good?

Next, I will try to look very briefly at how the answers to these questions evolved throughout the history of economic thought. In this first part we will analyze the evolution of the theories of value and price from Aristotle up to and including the classical economists. In Part II we will analyze the evolution of the marginalist schools from their origins to the present day.[ii] I find it more interesting to quote the thinkers directly than to recount what they said. So, the article is basically a selection of quotes from the most relevant paragraphs in which the thinkers referred to value. For reasons of space, it is impossible to cite all those who contributed to this important topic of economic theory, so I trust that the chosen sample will be sufficiently representative.

2. Aristotle (384-322BC)

Aristotle, like almost all Greek philosophers, was concerned with how to achieve a just society; therefore, he dealt only tangentially with economic issues when they related to justice. Fundamentally economic problems were related to justice in exchanges, which he treats in several works, so that there is no very systematic exposition. In any case, he made the first recorded reflections on value and price that gave rise to an intense debate that continues to this day. Regardless of his successes and mistakes, his main contribution was to have begun to address the issue.

First, in Book I, Part IX of *Politics*, Aristotle (1912) clearly distinguishes between the concept of use-value and exchange-value (or, if you will, between value and price). While he did not use these terms, the two concepts are very clear, as can be seen in the following quotation:

> The uses of every possession are two, both dependent upon the thing itself, but not in the same manner, the one supposing an inseparable connection with it, the other not; as a shoe, for instance, which may be either worn, or exchanged for something else, both these are the uses of the shoe; for he who exchanges a shoe with some man who wants one, for money or provisions, uses the shoe as a shoe, but not according to the original intention, for shoes were not at first made to be exchanged.

While Aristotle clearly distinguished between use-value and exchange-value, you have to remember in what context he does it and why he does it. He was not talking about value or price, but about the different ways people have of acquiring goods, one of which is exchange. So, it cannot be said that he has *consciously* made the distinction to solve or deal with the problem of value. Note also that he is not using the terms *use-value* or *exchange-value*. While several historians of economic thought credit Aristotle with being the first to distinguish between these two types of value, it cannot be concluded that he realized the importance of such a distinction for the problem of value. Moreover, the problem of value was not even raised, at least in this part of his work.

In *The Nicomachean Ethics* is where Aristotle touches most closely on the issue of value and price, by trying to solve a problem of the criteria of justice. Chapter 5 of Book V of Ethics is titled: "Simple requital is not identical with what is just, but proportionate requital is what is just in exchange; and this is effected by means of money."

Aristotle (1893) is looking for some criterion that serves to administer justice and begins by analyzing reciprocity, or the talion, saying: "And so the Pythagoreans used to teach; for their definition of what is just was simply that what a man has done to another should be done to him" (p. 152). Aristotle states that there are many cases in which this doctrine does not work but believes that it is the kind of justice that should regulate the common relations of citizens and that "it is true that, in the interchange of services, this is the rule of justice that holds society together, viz. requital - but proportionate requital, and not simple repayment of equals for equals (p. 153).[1]

Having provided this introduction, he gives us an example that has become a classic quote in the history of economic thought. From this quote the most diverse interpretations have been extracted about whether this philosopher had a subjective or an objective theory of value. Aristotle (1893, pp. 153–154) says in this paragraph:

> But proportionate interchange is brought about by "cross conjunction."
> For instance, let A stand for a builder, B for a shoemaker, C for a house, D for shoes.
> The builder then must take some of the shoemaker's work, and give him his own work in exchange.
> Now, the desired result will be brought about its requital take place after proportionate

[1] Aristotle was not a supporter of equality before the law. For example, it stated that: "[...] if an officer strikes a man, he ought not to be struck in return; and a man strike an officer, he ought not merely to be struck, but to be punished." (p. 152).

> equality has been established.
> If this is not to be done, there is no equality, and intercourse becomes impossible; for there is no reason why the work of the one should not be worth more than the work of the other. Their work, then, must be brought to an equality [or appraised by a common standard of value]. This is no less true of the other arts and professions […]

In the quote there are two clear concepts: 1) for there to be justice in the exchanges, what is delivered has to be "equal" to what is received. As Aristotle never clarified what needs to be equalized, this paragraph and others gave rise to very varied interpretations by later thinkers and historians of economic thought. (2) An objective notion of value is implicit when it states: "[…] there is no reason why the work of the one should not be worth more than the work of the other."

These two concepts are related. Theories of value have been divided globally into two large groups: objective and subjective. Objective theories hold that value is in things, while subjective theories hold that value is given by the individual. No one who is in favor of a subjective theory can coherently say that one thing is worth more than another, except in a personal capacity. A commodity has not "one" value but as many values as individuals. Whenever it is said that one thing is worth more or less than another a subjective judgment is made, it is the appreciation of a person at a particular time and circumstance. Not only do individuals value the same thing in different ways, but they can also value the same thing differently at different times and circumstances. It is very likely that a physicist or an engineer will value a scientific calculator very differently than a lawyer. The same person will surely value a doctor differently when they are sick than when they are healthy. A thousand kilos of gold have no value for a person if he is locked with them and incommunicado in the safe. And we can still go further if we ask, for example, what a screwdriver is for. The immediate answer seems to be: To place and remove screws. But it can also be used to break glass, make holes in the wall, lock a door, open a can, cause an electrical failure, and so on. There is a tendency to objectify the usefulness of a thing with the most frequent use it is given or with the purpose that its inventor had in mind. But in reality, it is the mind of people that associates and discovers different forms of use.

In the last quoted paragraph of Aristotle, it seems to be very clear that this thinker had an objective idea of value, and, as we shall see, this idea of objective value was taken and followed by the scholastics.

Some historians of economic thought have attempted to support the thesis that Aristotle had a subjective theory of value. One of the best known within this current of thought is Emil Kauder (1953, p. 638), who says:

> It is generally accepted that Aristotle was the first who created the concept of the value in use. That he had a far-reaching knowledge of this field is generally unknown. Only Oskar Kraus of Prague, who was a student of Aristotle and of the Austrian school of economics, presented a complete picture of the Aristotelian thoughts, which show similarities with the Austrian theories of much later date.

Kauder himself adds (p. 650):

> […] the father of our economic science wrote that water has a great utility and a small value. With these few words Adam Smith had made waste and rubbish out of the thinking of 2,000 years. The chance to start in 1776 instead of 1870 with a more correct knowledge of value principles had been missed.

In contrast to Kauder's opinion, we can cite the opinion of Ludwig von Mises (1949, pp. 203–204), one of the most important representatives of the Austrian School, according to this economist:

> An inveterate fallacy asserted that things and services exchanged are of equal value […] This fallacy frustrated Aristotle's approach to economic problems and, for almost two thousand years, the reasoning of all those for whom Aristotle's opinions were authoritative.

As you can see, the difference between Kauder and Mises was not one of nuance.

One of the biggest problems is that Aristotle never clarified what needs to be equalized for the exchange to be fair. In quote 4 it is clear that for him you have to equalize the values of things so that the exchange is fair.

One may ask: was he talking about use-value or exchange-value? If he was referring to the use value, or utility of goods, he was wrong. The exchange between two people occurs when there is disparity and not when there is equality of valuations. Two people exchange when respectively they value more what they receive than what they deliver. When Aristotle says that: "If this not to be done, there is no equality, and intercourse becomes impossible […] Their work, then, must be brought to an equality" is making, as Mises says, a great mistake. It is not understood how Kauder and Kraus can see in Aristotle a precursor of the Austrian school when he was developing a totally opposite theory of exchange.

But in reality, Aristotle (1893, p. 158) was not referring to the use-value but to the exchange-value or price of commodities, as can be clearly seen in the following quote:

> For instance, let A stand for a house, B for ten minæ, C for a bed; and let $A = \frac{B}{2}$, taking a house to be worth or equal to five minæ, and let C (the bed) = $\frac{B}{10}$. We see at once, then, how many beds are equal to one house, viz five.

What Aristotle must answer in this case is: what is it that makes one have to deliver x quantity of a commodity to obtain one unit of another? To follow suit, "how many" determines how many beds must be delivered to "match" the value of a home. Today we will immediately respond in terms of supply and demand. But Aristotle never said this; therefore, any interpretation you want to make about what he meant is an irrefutable conjecture. Classical economists have been criticized for having an objective theory of value or cost of production. Actually, as we will see, the classics did not have a theory of value. Like Aristotle, they referred to the exchange-value or price of commodities.

In the following paragraph it seems to be implicit that individuals exchange because each one needs more of what the other has, and that when he speaks of equality, Aristotle (1912, p. 157) refers to the exchange-value and not the use value:

> […] is seen from the fact that people do not exchange unless they are in need of one another's services (each party of the service of the other, or at least one party of the service of the other), as when that which one has, *e.g.* wine, is needed by other people who offer to export corn in return. This article, then [the corn to be exported], must be made equal [to the wine that is imported].

It would seem that Aristotle holds that exchange takes place because men need each other, but that such exchange has to be done at a fair price, "equalizing things on both sides." Historians of economic thought who attribute to Aristotle some foresight of marginal utility theory cite the following paragraphs in defense of their point of view, but these do not belong to *Ethics* but to *Topics* (1908, p. 68):

> Moreover, judge by the destructions and losses and generations and acquisitions and contraries of things: for things whose destruction is more objectionable are themselves more desirable. Likewise also with the losses and contraries of things; for a thing whose loss or whose contrary is more objectionable is itself more desirable. With the generations or acquisitions of things the opposite is the case: for things whose acquisition or generation is more desirable are themselves also desirable.

and in another paragraph Aristotle (1908, p. 72) says:

> Again, a thing is more desirable if, when added to a lesser good, it makes the whole a greater good. Likewise, also, you should judge by means of subtraction: for the thing upon whose subtraction the remainder is a lesser good may be taken to be a greater good, whichever it be whose subtraction makes the remainder a lesser good.

It seems that one must employ a lot of charitable interpretation to find in these paragraphs an insinuation of the theory of marginal utility, and even more so if one stops to examine the context from which they were taken.

But if we take a paragraph from *Rhetoric*, we can see that Aristotle (1833, pp. 48–49) was locked in the famous paradox of value attributed to classical economists, according to which very useful things can have little exchange-value and unhelpful things, a high exchange-value:

> The more rare good is greater than the abundant; this gold is better than stee, notwithstanding that it is less useful; for the acquisition, by reason of its being more difficult, is greater. And in another view, the abundant is better than the rare, for the enjoyment of it exceeds that of the other; for the idea of *often* exceeds that of *seldom*; whence it is said, "Water is the best of things".

This paragraph seems to show that the classics did not back down from what Aristotle said about value but, on the contrary, more clearly and explicitly raised the same problems that the Greek philosopher had.

As we said earlier, Aristotle was not worried about economic problems; he was interested in how to achieve a just society. Unfortunately, he chose a bad example (the exchange) to illustrate the criterion of the law of the talion.

To make a fairer interpretation it is not convenient to cling to isolated paragraphs; the important thing is the context. Quite possibly what Aristotle meant is much simpler and could be the following: all goods have a price (regardless of whether it is set by the market or the government) and if someone tries to sell more expensive or buy cheaper than that price the exchange is unfair. It is like the uninformed tourist who pays a higher price than what is usually paid in the market or that the government has set. This interpretation seems much more feasible than trying to attribute to it sophisticated reasoning about determining the value and price of things. As we will see later, the scholastics also spoke of the fair price, which could be both the one that fixed the market and the one set by the ruler. And seen in the context of the work, it seems difficult to think that Aristotle considered the "fair price" to be the market price. This thinker was very inclined to regulate the lives of citizens. He did not believe that society or the market was regulated by spontaneous or natural laws. The following quote clearly shows his thinking (Aristotle, 1912, p. 159):

> […] but a city which produces numerous artisans and comparatively few solders cannot be great, for a great city is not to be confounded with a populous one. Moreover, experience shows that a very populous city can rarely, if ever, be well governed; since all cities which have a reputation for good government have a limit of population.[2]

Aristotle, unlike Plato, defended private property, but this does not imply that individuals could make free use and disposition of their property. The state had to regulate social relations by means of "good laws".

Aristotle's works remained lost for many years. His thinking was taught by word of mouth. When the Romans invaded Greece, they found the works in the hands of a wealthy merchant and took them to Rome. Since then, a slow reconstruction of the papyri that had been deteriorated in various parts by moisture and worms began.

3. Saint Augustine (345-430)

St. Augustine (1887, p. 489) seems to have said the same thing as Aristotle but much more clearly. The following is one of the classic quotes (italics added):

> […] there are various standards of value, so that it comes to pass that we prefer some things that have no sensation to some sentient beings. And so strong is this preference, that, had we the power, we would abolish the latter from nature altogether, whether in ignorance of the place they hold in nature, or, though we know it, sacrificing them to our own convenience. Who, e.g., would not rather have bread in his house than mice, gold than fleas? But there is little to wonder at in this, seeing that even when valued by men themselves (whose nature is certainly of the highest dignity), more is often given for a horse than for a slave, for a jewel than for a maid. Thus the reason of one contemplating nature prompts very

[2] For a detailed exposition of Aristotle's position regarding a free market economy, see Lewis (1978).

> different judgments from those dictated by the necessity of the needy, or the desire of the voluptuous; for the former considers what *value a thing in itself has* in the scale of creation, while necessity considers how it meets its need; reason looks for what the mental light will judge to be true, while pleasure looks for what pleasantly titillates the bodily sense.

This is a paragraph where a subjective view of human needs clearly appears, and which is similar to what Aristotle said. But St. Augustine, like Aristotle, in speaking of the true value of things was referring to exchange-value and not use value, as can be clearly seen in the following quote:

> […] and a large crowd assembled on the appointed day, silent and expectant, to whom he is said to have announced, "You wish to buy cheap and sell dear." That actor, either from self-examination or from experience of others, came to the conclusion that to wish to buy cheap and sell dear was common to all men […] As a matter of fact, it is a vice […]. I myself know a man to whom the sale of a book was offered; he saw that the seller was unaware of its *real* price and for that reason was asking very little for it. And yet he gave the seller, ignorant as he was, the just price which was far greater […]. We have known people from humanitarian motives to have sold cheaply to their fellow citizens grain for which they had paid a high price.[3]

Note that he is talking about the "real" value, that is, the price, of things. But St. Augustine, like Aristotle, did not explain how that "real" value is established. Is it set by the market or the government? Given St. Augustine's little sympathy for the rich, it seems more likely to assume that that true value was established by the government. But this is nothing more than a non-refutable conjecture.

4. Saint Albertus Magnus (1193-1280)

St. Albert the Great was a great defender of the doctrine of the just price outlined by Aristotle.

> There is accordingly always a just mean between gain and loss. This mean is preserved when in a voluntary contract the antecedent situation is equivalent to the consequent, that is to say, before and after the contract. A couch, for example, prior to the contract had a value of five; if one received five for it, the situation consequent to the contract is equal to that which was antecedent. No one can complain that he has been in any way injured thereby.
> Such exchange, however, does not take place through an equality of the things exchanged but rather according to the value of one thing in relative proportion to the value of the other with due regard for the need which is the cause of the transaction.[4]

But St. Albertus Magnus goes a step further than Aristotle, as he introduces a criterion for how the "just middle ground" is determined. In the following paragraph we can see that this equality between what is given and what is received is determined by the cost of production (italics added):

> According to this analysis, the carpenter ought to receive the product of the tanner and in turn pay the tanner that which according to a just exchange is his. […] And when this equality is not preserved, the community is not maintained, for *labor and expense are not repaid*. For all would, indeed, be destroyed if he who makes a contract for so much goods of such a kind, does not receive a similar quality and quantity. For the state cannot be built up of one type of workers alone. Properly, therefore, these things are exchanged not absolutely but with a certain comparison to their value according to use and need. Otherwise, there would be no Exchange.[5]

[3] As quoted by Dempsey (1935, p. 475).
[4] As quoted by Dempsey (1935, p. 476).
[5] As quoted by Dempsey (1935, p. 477).

Note that, in both this and previous citations, necessity is included to explain the cause or motive of the exchange, but not the use or exchange-value. The addition of St. Albertus Magnus to Aristotle is the criterion for determining how the famous "equality" is established between what is delivered and what is received, and this criterion is the cost of production. In any case, this thinker does not explain how the value and price of things are determined.

5. Saint Thomas Aquinas (1225-1274)

St. Thomas Aquinas follows Aristotle and St. Albertus Magnus almost word for word. The themes of value and price are dealt with in a relevant way in two of his works; one of them is *Commentaries on Nichomachean Ethics* and the other is *Summa Theologica*. Like Aristotle, St. Thomas includes these themes within a broader point which is the "Treatise on Justice." At his time, profit and interest were condemned by the Catholic Church[6] and what St. Thomas tries to do is explain why the pursuit of profit and the collection of interest is not always a sin. For this he decides to address the problem through the "fair price". Let's first look at some paragraphs extracted from *Commentaries on Nichomachean Ethics*. In the following paragraph he strictly follows St. Albertus Magnus, arguing that the fair price is the one that compensates for the cost of production (Aquinas, 1964, bk. V Lecture 9, Ch. 5):

> In order then to have just exchange, as many sandals must be exchanged for one house or for the food required for one man as the builder or the farmer exceeds the shoemaker in his labor and costs. If this is not observed, there will be no exchange of things and men will not share their goods with one another.

On the other hand, St. Thomas Aquinas (1964, bk. V Lecture 8, Ch. 5) also states:

> Therefore, if *first* an equality according to proportionality is found so that on one side a certain number of sandals be fixed as equal to one house (for a builder incurs more expense in building one house than a shoemaker in making one sandal) […]

and after saying that it takes many pairs of shoes to buy a house, he says (1964, bk. V Lecture 9, Ch. 5. italics added):

> […] if a farmer gave a bushel of wheat for a sandal, he would have a *surplus* of labor in his product and would have also an excess of loss because he would be giving more than he would receive.

St. Thomas Aquinas being one of Aristotle's most recognized interpreters, these quotes seem to disqualify those who have wanted to see in the Greek philosopher a precursor of the subjective theory of value. Clearly, St. Thomas Aquinas is identifying the right price with the cost and labor invested in the production of the good. This does not mean that he does not have other paragraphs where subjectivity appears on the scene, for example:

> [Aristotle] states that for this reason it is possible to equate things because all things can be measured by some one standard, as was pointed out. But this one standard which truly measures all things in demand. This includes all commutable things inasmuch as everything has a reference to human need. Articles are not valued according to the dignity of their nature, otherwise a mouse, an animal endowed with sense, should be of greater value than a pearl, a thing without life. But they are priced according as man stands in need of them for his own use.

This paragraph follows immediately after the one that states that the fair price is the one that compensates for the work and cost of the parts they exchange, which seems quite contradictory. But immediately another

[6] For a more detailed discussion see Tawney (1926) and Grace-Hutchinson (1982, pp. 36–46).

problem appears: *the exchange between two people does not take place if the indigences (or needs) are equalized*. People exchange when everyone values more what they receive than what they deliver. We can even go further and affirm that the greater the difference between the value of what is delivered and that of what is received, the better (or fair) the exchange will be because both parties are receiving something they value a lot in exchange for something they value little. St. Thomas Aquinas entered into a contradiction from which he could not get out. More coherent was his teacher St. Albertus Magnus, since he distinguished, within his error, between the reason for the exchange, that is, the different valuations, and the fair price that was given by the cost of production.

In the *Summa Theologica* St. Thomas Aquinas follows the same reasoning. Article 1 of the second part of the second part (SS), question 77, bears the following title: "Whether it is lawful to sell a thing for more than is worth." As you can see, the same title has an implicit objective theory. If by *worth* St. Thomas Aquinas meant *use value*, then, if there is freedom of contracting, it is impossible to sell a thing in more than it is worth since no one would buy it. It would be a logical inconsistency to say that value is subjective and at the same time write this title. It seems, then, that the word *value* has rather objective content here, and it is quite possible that it is referring to the *price* of the product. In this way, the title is asking if it is lawful to sell a thing at a price higher than what is usually agreed in the market. It should be remembered that, in reality, there is no such thing as "a" price for a certain type of product. For the same type of product there are as many prices as transactions. In each sale a price is established; that most transactions are repeated at the same price is another problem. If the contract is voluntary, the freely agreed price *is always fair*, because a voluntary transaction is carried out only if each of the parties values more what it receives than what it delivers, although this is apart from what is usually paid in the market. If all transactions had to always be made at the same price, then prices would never go up or down. St. Thomas Aquinas (1485 Part 2, Section 2, Question 77, A.1.) concludes that selling something more expensive than it is worth is unfair and illicit:

> […] the quality of a thing that comes into human use is measured by the price given for it, for which purpose money was invented, as stated in *Ethic*. v, 5. Therefore if either the price exceed the quantity of the thing's worth, or, conversely, the thing exceed the price, there is no longer the equality of justice: and consequently, to sell a thing for more than its worth, or to buy it for less than its worth, is in itself unjust and unlawful.

Some historians of economic thought argue that for St. Thomas Aquinas the fair price is the market price. Now, "market price" is any price agreed in a voluntary transaction, without compulsion. If this conclusion were true, St. Thomas Aquinas could not have written that selling or buying something more expensive or cheaper than it is "really" worth is unjust and unlawful. In a free economy the only unfair or illicit price is that which arises from compulsion or fraud. On the other hand, who determines what a commodity is really worth? The quote clearly shows that St. Thomas Aquinas had an objective theory in mind; there has to be an agent external to the market that determines the real value of things, otherwise it is each individual in each transaction who is subjectively valuing the commodity, and the price will seem high or low depending on his particular valuation. Anyway, it is also clear that he is not referring to the use-value but to the exchange-value. The most likely interpretation, as in the case of Aristotle, seems to be the case in which because of being misinformed someone buys or sells at a higher or lower price than what has been paid historically.

Within the *Summa Theologica* St. Thomas Aquinas does not explain what it is or how the real value of things is determined and the most explicit thing he said is, as we saw, in *Commentaries on Nichomachean Ethics*, that is, in the costs and labor that required the production of the commodity. In *Summa Theologica* there is a milder insinuation in favor of costs and labor as determinants of fair price or true value. Following Aristotle again, he analyzes whether it is lawful in commerce to sell a thing at a higher price than the one that was bought, distinguishing two types of trade: 1) natural or necessary and 2) to obtain profit. The first is done when a person gives something he owns and does not need in exchange for something else he needs, and the second consists of buying and selling goods for a profit (Aquinas, 1485 Part 2, Section 2, Question 77, A.1.).

> The other kind of exchange is either that of money for money, or of any commodity for money, not on account of the necessities of life, but for profit, and this kind of exchange, properly speaking, regards tradesmen, according to the Philosopher (*Polit*. i, 3). The former kind of exchange is commendable because it supplies a natural need: but the latter is justly deserving

> of blame, because, considered in itself, it satisfies the greed for gain, which knows no limit and tends to infinity.

This paragraph also disqualifies the interpretation that St. Thomas Aquinas thought the fair price is the market price. If St. Thomas Aquinas identified the fair price with the market price, he would have had to come to the opposite conclusion because profits, moreover, large profits, *if the market is free*, are a reflection of the fact that it has contributed to increasing the well-being of the rest of the people. However, St. Thomas Aquinas seems to have a more mercantilist view of the market according to which the *gains of some are the losses of others*. In the following quote he tries to rescue an aspect of pure commercial activity (for profit) that Aristotle had definitively condemned (Aquinas, 1485 Part 2, Section 2, Question 77, A.4., italics are added):

> Nevertheless gain which is the end of trading, though not implying, by its nature, anything virtuous or necessary, does not, in itself, connote anything sinful or contrary to virtue: wherefore nothing prevents gain from being directed to some necessary or even virtuous end, and thus trading becomes lawful. Thus, for instance, a man may intend the *moderate* gain which he seeks to acquire by trading for the upkeep of his household, or for the assistance of the needy: or again, a man may take to trade for some public advantage, for instance, lest his country lack the necessaries of life, and seek gain, not as an end, but as payment for his labor.

The profit is fair or not according to the purpose for it to be used, so that a merchant who made a profit of $100 and allocates it to feed his family would be honest and fair, but another who also obtained $100 and allocates them to an expense that someone determines as sumptuous is obtaining an unfair profit. However, if the market is free, the two will have rendered the same service to the community. St. Thomas Aquinas conclusion sounds very incoherent. A *free-market* supporter condemns only profits made by legal privileges granted by the government. There is no one who can determine what is and what is not luxury. In reality, if we discount the essential consumption to live, such as feeding or sheltering, everything else is luxury. What differentiates man from animals is that he can rise above these vital needs, he can increase his quality of life by giving himself luxuries. Eating with cutlery is not necessary for life, nor is a mirror, cosmetics, music, chairs or the electric doorman. It is generally identified with "luxury" that which a few consume, but the luxury of today usually becomes the "basic need" of tomorrow, for example, refrigerators, fans, computers and even cars.

Finally, below we have a quote that reinforces St. Thomas Aquinas's idea that the fair price is given by the cost and labor of producing the good (Aquinas, 1485 Part 2, Section 2, Question 77, A.4.):

> [if a merchant] sells at a higher price something that has changed for the better, he would seem to receive the reward of his labor.

Given these clear paragraphs, it is difficult to understand how Grice-Hutchinson (1982, p. 114) was able to arrive at the following statement: "The predominantly subjective theory of value held by St. Albert and St. Thomas [...]".[iii] Alejandro Chafuen reaches a similar conclusion when he states that: "The scholastic tradition relegated to the background the issue of the cost of production as a determinant of the price and enhanced *the utility* and the general estimate that was made in the market."[iv] Later we will see what the rest of the scholastics held, but if there is something clear in St. Thomas Aquinas it is that the only thing that stood out was cost and work as a criterion of fair price, especially in the paragraph that we quote from *Commentaries on Nichomachean Ethics*. Chafuen quotes the following paragraph from St. Thomas Aquinas to defend his claim: "the price of things in trade is not determined by the hierarchy of their nature, since sometimes a horse is sold more expensive than a slave, but by the utility that men obtain."[v]

Actually, this is the only paragraph that can be quoted from *Summa Theologica* 2.2. question 77 in favor of a subjective theory. But if one reads without passion the entire context from which the quote was extracted, it is possible to appreciate that the paragraph cited is the one that remains in the *background*. It should be added that in this paragraph St. Thomas Aquinas repeats St. Augustine almost with semicolons (see above). If St. Thomas Aquinas had really had a subjective theory, he could not have written that it is unfair and illicit to sell something more expensive than it is worth, or that profit has to be moderate, or that it is justified if a productive process has been carried out and work has been incorporated into it. All these claims seem to put St. Thomas Aquinas as a precursor to the theory of added value. Also, the famous historian Raymond De Roover has tried to reconcile the contradictory paragraphs of St. Thomas Aquinas. De Roover (1958, p. 422) interprets St. Thomas Aquinas as referring to production costs because he thought that: "[…] the market price could not fall permanently below cost. If so, there is no contradiction, since the market price would then tend to coincide with cost or to oscillate around this point like the swing of a pendulum."[7] It seems a bit forced to argue that St. Thomas Aquinas was at the beginning of the tenth century thinking about the equilibrium of perfect competition where prices tend to equate with costs. But while it is true that St. Thomas Aquinas had this in mind, it does not follow that the fair price is what determines the cost, as he maintained. De Roover himself has to admit that "Thomas Aquinas nowhere puts the matter so clearly […]"; in other words, the conjecture De Roover makes is not verifiable.

The conclusion reached by Sewall (1901, p. 20) that for St. Thomas utility does not play the most important role, but costs do, seems to be more accurate:

> Aquinas, however, not failing to recognize that the useful qualities of a good often influence the estimation of its importance and thus help to make the value, accords utility a place among the items to be considered in reckoning price, but the main emphasis in his discussion is upon items of cost.[8]

We must remember that St. Thomas Aquinas was, like Aristotle, concerned with many other subjects; economic issues did not arouse his interest at all. Perhaps it is the responsibility of some historians of economic thought to have made him say more things than he actually said. The thought of St. Thomas Aquinas is much simpler and easier; it seemed unfair and illegal for merchants to take advantage of the ignorance of some to sell more expensive or buy cheaper than the price usually paid in the market. But he was not interested in wondering how the price or value of things is determined. St. Thomas Aquinas does not say that the fair price is the market price or that it is not. He simply did not analyze the problem because he was not interested in this topic.

6. The Scholastics

6.1. John Duns Scoto (1265-1308)

This thinker is believed to have added two "substantial" points to what St. Augustine and St. Thomas Aquinas had said about the "fair price," which are expressed as follows (as quoted by Dempsey, 1935, pp. 482–483):

> Beyond the rules which have been given above as to what is just and what is not, I add two. The first is that such an exchange be useful to the community, and the second, that such a person shall receive in the exchange recompense according to his diligence, prudence, trouble, and risk […]. This second rule follows because every man who serves the community in an honest function ought to live by his work. But such a one as transports or stores goods is of honest and useful service to the community, and should, therefore, live by his work. And, moreover, one can sell his effort and care for a just price. But great industry is required of one who transports goods from one country to another inasmuch as he must investigate the resources and needs of the country. Therefore, may he take a price corresponding to his labor beyond the necessary support for himself and those of his establishment employed according to his requirements, and thirdly, something beyond this corresponding to his risk. For if he is a transporter or custodian of goods (e.g., in a warehouse), he does this at his own risk and for this risk he is in all conscience entitled to some recompense. And this is especially true if, now and then, through no fault of his own in such a service to the community he suffers a loss; for a merchant engaged in transport now and then loses a ship laden with fine wares, and the custodian occasionally loses in an accidental fire, the valuable goods which he stores for the

[7] Grice-Hutchinson (Grice-Hutchinson, 1982, p. 113)went further and admitted that "[...] St. Thomas recognizes that labor and costs enter into the determination of price [...]". [TN: My translation]

[8] Equally accurate is Richard H. Tawney's (1926, p. 48) conclusion: "The true descendant of the doctrines of Aquinas is the labor theory of value. The last of the Schoolmen was Karl Marx."

> use of the commonwealth.
> It is evident from these two conditions requisite in just business how some are called business men in a vituperative sense, those to wit who neither transport, nor store, nor by their own industry better a salable article, nor guarantee the worth of some object for sale to one who lacks the necessary knowledge of it. These people who buy only to sell immediately, under none of the above conditions ought to be crushed by the community and exiled. Such persons are called by the French regraters because they prevent the unhampered exchange of those who wish to buy or make an economic exchange, and as a result, they render a salable and usable article dearer to the buyer than it should be, and dearer to the seller. Thus the contract is defective on both sides.

The points that Duns Scotus says to "add" were already clearly stated by St. Thomas Aquinas, who, as we saw, held that the profit of trade is neither good nor bad, but that everything depends on the purpose for which it is intended. And the second "aggregate", that the merchant should receive a reward for his work, costs and risk, was also clearly exposed by St. Thomas Aquinas.

Raymond De Roover argues that Duns Scotus' thinking is opposite to that of St. Thomas Aquinas, as he considers the former to have a cost-based theory of value and the latter on utility, but, as we saw, this is actually not true. De Roover puts Duns Scotus as the founder of a school of his own that bases the fair price on the cost of production and mentions as main followers the Scotsman John Mayor (1469-1550) and the Portuguese Johannes Consobrinus (d. 1546).

6.2. Johannes Buridanus (1300-1358)

Buridanus was one of the first thinkers to place more emphasis on necessity as the basis of value:

> The value of goods is calculated by human need [...] and, therefore, the satisfaction of needs is the real measure of economic goods. But it would seem that this satisfaction is measured by need; since satisfaction is greater when the need satisfied is important [...] as shown by the fact that wine is more appreciated when it is scarce, because we need it more.[vi]

Buridanus came very close to the concept of marginality but failed to pin it down. On the one hand it emphasizes necessity as a determinant of value and on the other hand on scarcity, but it does not formally unite them. The fact that he emphasized the subjectivity of value does not imply that Buridanus was a supporter of price freedom; he, like most scholastics, was in favor of price fixing by kings. It said that prices should be fixed: "*secundum utilitatem et necessitatem totius communitatis*" and not "*penes necessitatem ementis vel vendentis.*"[9] If we divide the scholastics between those who defended the fair price on the basis of the cost of production and those who defended it on the basis of utility or necessity, we must not conclude that some advocated price control and the others did not. Both were in favor of controlled prices; they differed only in the elements that the king had to take into account: costs or needs.

6.3. Saint Bernardine of Siena (1380-1444)

St. Bernardine points out that goods can have two types of value: 1) natural and 2) use. The first is objective and the second subjective. Saleable goods are valued in the market for their use value. But an inconsistency appears, because St. Bernardine argues that the use-value is determined by three factors: 1) *virtuositas*, which is the intrinsic quality of the good, 2) *raritas*, which is its scarcity, and 3) *complacibilitas*, which is the common estimate of a good. St. Bernardine says:[10]

> And this use-value [or value in use] can be considered from three perspectives:
> 1) *Virtuositas* [Objective value in use]

[9] "According to the utility and need of the whole community" and not "with the seller's claims". As cited by Tawney (1926, p. 289). [TN: Translation is my own]
[10] As cited by Chafuen (1986, pp. 95–96).

2) *Raritas* [Scarcity]
3) *Complacibilitas* [Desirability]

Virtuositas is an objective element, it is something that is in things; but in reality, the value is not in things, but in men. But what is an intrinsic quality? The quality that a good can have is not the one that gives it value; only when man realizes that any of these qualities can be a useful series does the good acquire value. As long as a man is not aware of the existence of such utility, the good has no value, even if the quality of the good is present there. In addition, to reinforce the importance of the human mind in the formation of value, we can add that goods have not one quality but as many as man can think of. As we saw before, a screwdriver, for example, serves to put or remove screws, but it can also be used to open a can, such as paperweight, ornament, to lock a door, to cause an electrical failure, to break a glass, and we can continue to think of countless possible applications for a screwdriver, as for any object. There are actually as many *virtuositas* as there are useful ideas in the user's mind. What a good can do is a purely intellectual, and therefore subjective, creation. Obviously, one cannot pretend to fly with a screwdriver, but one cannot speak of "the" intrinsic quality, but of "the" intrinsic qualities of goods, and of these there are as many as the human mind can think of.

The confusion that has arisen around this issue may be due to the fact that quality and utility cannot be separated. For a good to be useful it must have certain qualities that serve to satisfy the needs of a man; without them the good may lose value, but it loses value because it has ceased to be useful. Utility and quality are like two sides of the same coin. But, to put the horse before the cart, it is the human need that makes a quality useful and for this reason the value is subjective. Those who maintain that a good has value because it possesses some quality are assuming, without realizing it, that that quality is already useful, that is, that the good already has value.

Complacibilitas is a subjective factor. However, the way it is defined can serve to explain how the "price" of the good is formed, but not its "use value." The use-value is totally subjective, there are as many as there are people.

The *complacibilitas* was defined as the common estimate, but, by a basic principle of methodological individualism, only individuals value; talking about the society, community or country that values does not make sense.[11]

In determining the "price" San Bernardine is more accurate. Let's remember that, like all his predecessors, he was worried about the just price (as cited by Sewall, 1901, p. 25):

> Just Price is what conforms to the valuation of the place, that is, to what the subject of a sale is commonly thought to be worth at such a time and at such a place

According to De Roover, for San Bernardine the just price was determined by (as cited by De Roover, 1955, p. 164):

> the estimation made in common by all the citizens of a community

Finally, San Bernardine included the *raritas* (scarcity) in his analysis (as cited by Chafuen, 1986, p. 96):

> Water is usually cheap where it is abundant. But it can happen that, on a mountain or in another place, water is scarce, not abundant. It may well happen that water is more highly esteemed than gold, because gold is more abundant in this place than water.

As in the case of Buridanus, St. Bernardine came very close to a theory of marginal utility, but he also suggested the control of prices by kings and advised them to take into account, among other factors, the cost of production. According to Sewall (1901, p. 26):

> [Saint Bernardine] also named the items that ought to be considered by public authorities in establishing legal prices. There were the natural utility of the good, its abundance or scarcity,

[11] As von Mises (1962, p. 78) says, "The worst enemy of clear thinking is the propensity to hypostatize, i.e., to ascribe substance or real existence to mental constructs or concepts."

> the peril, fatigue and industry of those who procured it and preserved it and otherwise inconvenienced themselves for the advantage of others. The retribution for personal services, he considered, should depend upon the character of the services, whether skilled or unskilled, and their dignity.

It could be concluded that St. Bernardine, like most scholastics, studied the formation of prices so that the princes could set them more accurately, but he was quite far from defending the freedom of the markets.

6.4. Saint Antonius of Florence (1389-1459)

St. Antonius had the same theory as St. Bernardine. In the following quote you can clearly see this influence and also that of Aristotle and St. Thomas Aquinas (as cited by Dempsey, 1935, p. 484).

> The value of an article rests on a three-fold consideration, (1) its intrinsic qualities, (2) its scarcity, and, (3) the desire which it arouses in us.
> The intrinsic qualities of a thing are known from the way in which, due to its inherent properties, it is more effective for our use. Thus, good wheaten bread has greater value for us than barley bread, and a powerful horse has greater value for traveling than an ass.
> Secondly, the value of a salable object is judged according to its scarcity, that is, things which are found rarely or with difficulty are more necessary in pro- portion as, because of their scarcity, we feel a greater need of them and there is less opportunity of owning and using them. According to this principle, grain is worth more in time of famine and scarcity than at a time when there is plenty for all […].
> Thirdly, a salable object is judged from its pleasant effect upon us, that is, according to the degree in which it pleases our fancy to own and use such an object. Thus no small part of the value of salable objects arises from the pleasure of the will taking greater or less satisfaction in the use of this thing or that. One horse is more pleasing to one person than to another, and an ornament pleases this person more than that.
> The third thing to be considered regarding the value of an object is that we can hardly ever determine it except conjecturally and with probability, and this not at a mathematical point but within a certain range respecting times, places, and persons […]. With regard to the second principle division, namely, that there is an appropriate range within the limits of which prices may vary, it should be observed that this may be known in three ways; from law, from custom, and from. practical judgment. First of all, from the law-extra De empt. et vend., Cum Dilecti.49
> This same proper range is known also in a second way. For as Scotus says in his commentary referred to above, experience shows clearly enough that the matter is ordinarily left to those making the exchange so that, having due regard for each other's wants, they judge them- selves to give and receive equivalents […]. Thus a certain real gift or concession commonly accompanies contracts. It is therefore probable enough that when the contracting parties are mutually satisfied, they wish to concede something to each other as long as they do not too grossly depart from perfect justice.
> This same appropriate range of price is known, in the third place, from practical judgment. For practical judgment dictates that when a thing, which in itself is worth ten, is as dear to the owner as though worth twelve, if I pro- pose to own it, I must give not only the ten but as much as it is worth to him according to his desire of retaining it.

As can be seen, St. Antonius uses the three concepts of St. Bernardine, *virtuositas*, *raritas* and *complacibilitas* to explain the determination of the [exchange] value of goods. But it begins to introduce some degree of flexibility as the “fair price” can vary within certain limits. In fact, this concept was already found in the *Talmud*, which accepted a deviation of 16.6% (see Kleiman, 1987) from the fair price. The scholastics extended it up to 50%.

These limits on price fluctuations show that neither was St. Antonius a supporter of a free market; prices had to be limited. In the following quote he follows St. Thomas Aquinas word for word condemning excessive profits (as cited by Dempsey, 1935, p. 483 italics added):

> The notion of business implies nothing vicious in its nature or contrary to reason. Therefore, it should be ordered to any honest and necessary purpose and is so rendered lawful, as for example, when a business man orders his *moderate* gain which he seeks to the end that he and his family may be decently provided for according to their condition, and that he may also assist the poor. Nor is condemnation possible when he undertakes a business as a public service lest necessary things be wanting to the state, and seeks gain therefrom, not as an end, but in remuneration for his labor observing all other due considerations which we mention. But if he places his final purpose in gain, seeking only to increase wealth *enormously* and to keep it for himself, his attitude is to be condemned.

6.5. Francisco de Vitoria (1483-1546)

This thinker was the founder of the School of Salamanca. Several historians of economic thought argue that this school is what laid the foundations of modern theories of value and price.

Francisco de Vitoria says very explicitly that costs should not be taken into account to determine the "fair price," from which it does not follow that he maintains that the "fair price" is the market price, but that other parameters must be sought for the king to establish the fair price:

> It follows from this principle that wherever a venal thing is so that there are many buyers and sellers of it, one should not take into account the nature of the thing or the price at which it was bought, that is, what its cost was. And with how many jobs and dangers, v.gr., Peter sells wheat; when buying it, one should not consider the expenses made by Peter and the works, but the common estimate "how it is worth". [If a seller sold the wheat more expensive] taking into account the expenses and work, he would sell unfairly because he should only sell it, according to the common estimate in the market, "to how much is worth in the market."[vii]

Vitoria begins to differentiate himself more clearly and explicitly from his predecessors. The costs should not be taken into account for the determination of the fair price but the common estimate of "how much it is worth in the market," which would seem to indicate that it is the market price.

While Vitoria's analytical breakthrough is important, it still has a mix of several concepts in it. It fails to separate the normative plane from the positive one. When he talks about price formation, he says that production costs and labor are not to be taken into account. In reality what it "must" be taken into account when wanting to sell or buy a thing is totally irrelevant to the formation of prices. The seller may try to compute production costs, or anything they can think of by asking for a price for their product. What "must" be taken into account when asking for a price is a problem of the seller. It is a totally subjective factor and economic theory has nothing to say on that matter. Economic theory is only interested in how prices are concretely determined in the market. Economic theory does not ask what "should" be included in the formation of prices. The question is, for example, whether costs have a specific bearing on price determination.

Due to the confusion of the normative and positive planes, Vitoria enters into a contradiction, because he is maintaining that a seller would sell "unfairly" if it did so at a price higher than the common estimate. As we said, there is no such thing as "the" market price of a commodity, what exists are as many prices as transactions and the market makes those transactions tend to take place within a certain margin due to competition. Market price is any price agreed in a voluntary transaction, so how can you sell something at an unfair price *if the transaction is voluntary*? As the scholastics failed to detach themselves from an objective conception of value, they could not abandon the concept of fair price. If value is subjective, there are as many valuations as there are people, there is no such thing as what the scholastics call the "common estimate;" the estimate is purely individual, it depends on each person. If the scholastics had realized this point, they would have been forced to abandon the idea of "fair price." When two people make a transaction voluntarily, the price is determined on the basis of their respective valuations and any price they agree on "is" a market price *even if it deviates far from what is "usually" paid.*

The difference between scholastics who defended the cost criterion to determine the fair price and those who defended the "common estimate" is simply that they appealed to different "objective" parameters to determine when a price was fair or unfair. The concrete fact is that the king could intervene to set maximum and minimum limits on the prices of goods when he disagreed with the valuations of the buyer and seller. Someone comes to impose externally a different, supposedly "objective" criterion for the determination of prices.

Vitoria claimed that the legal price, the one set by the king, can be fair; this implies that the market-setter may be unfair, so it is not correct to claim that this author believed that the fair price was the market price. To decide otherwise, for Vitoria the market price is fair as long as it does not differ from what he considers to be a fair price.

It should also be noted that he makes a distinction between basic and luxury goods and considers that costs can be taken into account to determine the fair price of the latter. This distinction is important because then, globally, Vitoria's thought could be summarized as follows: production costs are a good criterion for determining the fair price of luxury goods, but in the case of basic necessities the needs of the people or the common estimate must be taken into account. For this reason, these authors were in favor of price control of basic necessities. Then there may be free prices determined by costs in one case and maximum prices determined by necessity for basic necessities in the other.

6.6. Martín de Azpilcueta (1493-1586)

Azpilcueta is also a faithful continuator of St. Thomas Aquinas, especially when it comes to a moderate gain. This idea of moderate profit is consistent with Azpilcueta's (1556, p. 64) theory of fair price which, in turn, is practically identical to that of Aristotle and that of St. Thomas Aquinas:

> […] specially named contracts differ from those that have no name, they agree with them that (in order to be just) they also require that what is given or done by one party is worth as much as what is given or done by the other, according to that solemn rule of Scotus: that in all those that are properly contracts, in that one gives to another, without the intention of donating freely, there must be equality between what one party gives or does and between what the other gives or does. Therefore, for this contract to be lawful, it is necessary that what is given to the exchanger for giving a *cédula* and having the money given to him elsewhere is his fair salary, and that he does not take more. However, in order to discern which is just and which is unjust, by fault or by excess, one must resort to the law; and in the absence of it, to custom, if any; and in the absence of custom, to the agency of the prudent and good man.[viii]

We can see that in trying to establish what is a fair price he cites the law in the first place, customs in the second place and the prudent and good man in the third place and makes no mention of the voluntary agreement of the parties, which is the only source of the market price.

6.7. Tomás de Mercado (1500-1575)[ix]

Mercado is one of the most important representatives of the Salamanca school. He is also one of those most opposed to the free market; in any case, his analysis of value and price formation is in many ways correct. Faithfully following Aristotle and St. Thomas Aquinas, Mercado (1951, pp. 35–36) makes the following reflections:

> St. Thomas, who is our prince, says: It is proper for justice to make equality in human contracts. And equality is to adjust two dissimilar things, like a horse and a hundred ducats, in essence different, come to be equal in esteem if it is worth them. And justice causes that, trading the horse, the hundred ducats are given for him and not less, although it is possible with some deception or force to have less. Thus one is given what belongs to him with equality: to the one who buys his horse; to the one who sells as much money, as I said, in value.

Mercado, like Aristotle and St. Thomas Aquinas, defends private property against communal property, but with state regulation in use and disposition. In reality, from the point of view of economics and the efficient allocation of resources, what matters is that the owner can use and dispose of his property. Legal ownership is not sufficient for the market process. A landlord who has to do with his property what the state tells him is, for practical purposes, a public official. From the point of view of the market, there is no private property where there are regulations and controls by the state. Tomás de Mercado (1951, p. 59) does not hide his contempt for merchants and his search for profit:

> The desire of the merchant is the universal of all, although, as St. Augustine says, it is, with all its generality, vicious, it is convenient to know: to want to market cheap and sell expensive. And the trader has more, who not only desires and desires it, but exercises and seeks it. The intention and desire of the republic is, on the contrary, to sell as cheap as possible, because it belongs to promote all the utility and benefit to the neighbors. Hence he has authority for three things.
> The first: to expel and remove from the city the merchants, especially foreigners, and put from their hand three or thirteen that are, giving them enough flow with that they bring everything necessary and valuing all the merchandise at a price that saves more than the cost for coasts. I expressed «the foreigners», because always wise people judged them as pernicious to the city.

If this representative of the Salamanca School had been a supporter of free prices, he would not have to expel any merchant. On the contrary, he should direct his complaints against regulations and controls that limit competition, making products more expensive. The republic also has faculties to defend itself against merchants (Mercado, 1951, p. 61):

> [...] to establish and promulgate laws that are kept in contracts and to appraise and put prices on clothing, by which all are obliged to sell in conscience, because it is their trade to appreciate and give value to all things that serve human life, which of their own do not have it, or, if they do, it is not just or convenient to follow or consider what they are worth, but what they can serve and take advantage of man, for whose cause they were produced and preserved, as seems clear from examples.

For Mercado it is, then, the function of the government "to appreciate and give value to all the things that serve human life." Mercado (1951, p. 63) says later:

> [...] everyone is obligated to sell everything for what it's worth. This is a natural dictate of reason, which, without any doctor or positive law, teaches it to all nations. But, whatever the fair price of each, nature does not rate or indicate. [...]
> For if nature does not assess how much they are to be worth, how many reales, how many ducats, to whom else according to reason will it belong to provide this, being so necessary, than to the republic, whose office is to supply with its ordinations what nature lacks [...] And since the natural law, from which the civil law is derived, is divine law that flows from God and sculpted it in our hearts, for this reason the sages say that the power and secular jurisdiction that establishes these pragmatics also comes from Heaven through the natural one. So it is very fair to appreciate and tase the supply and other venal things, being so necessary to have in them rate and not having put it nature.

And then, Mercado (1951, p. 66) adds:

> because selling one at the price set is not only the king's law - that if it were, one could doubt whether it obliged or not - but divine and natural law, which is of greater force and which obliges everyone.
> Thus ecclesiastics, bishops and dignities, religious, canons and all others who by canon law are exempt from secular jurisdiction, are together obliged to keep the fee in what there is, not because they are subject to royal ordinances, but because they are subject to natural law. And natural law is that it is always sold for a fair price, and the same natural law also dictates that the republic sets a fair price, mostly the principals of it, the king or prince who governs it. And

> so, passing the rate they put, selling for more price, is not so much breaking the royal mandate as violating and piercing the divine and offending the neighbor.

To set prices, the authorities of the kingdom must take into account the following elements (Mercado, 1951, p. 68):

> Consider what it costs them [traders] , the costs they make in bringing it, the risk to which they expose it, by sea or by land, the time they have spent on it their money until it is taken out; already together with this, adding a moderate interest, the right price will be found and set.
> Which, although it seems to be verified only in the clothes that come from outside, can proportionately be applied in the fruits and harvest of the earth, which also have their expenses and dangers: look at what the laborers, the land, the pastures and the other expenses that are made cost, and give about this some interest to the farmers and shepherds, for it is everyone's gain and a universal good for them to win.
> Although, if there is of that kind of clothing already in the city, it is also necessary to consider the abundance and lack that there is of it while it is taxed that again wine, that so much can already exist in the republic that it can not be granted profit to the newcomer, before it is necessary to lose, for the reason and conjuncture that came [...]
> Since the price, to increase or decrease it is enough, or it must suffice, one of three circumstances or all of them, it is convenient to know: if there are now many more goods or many less than when they were appreciated; whether there are many or few buyers; or more or less money and are usually sold in cash.

In modern terms, Tomas de Mercado approaches the position of a social engineer who believes he can, as Adam Smith would say, fix the functioning of society in the same way that pieces are arranged on a chessboard. It states very clearly that rulers must take into account the costs, dangers, and state of supply and demand in order to set the "fair price."

This Salamanca School thinker, like many others, thinks that it is the needs that give rise to the value of things, he thinks that supply and demand are "some" (others are the costs) of the factors that kings and princes must take into account to set prices.

6.8. Luis de Molina (1535 – 1601)[x]

Luis de Molina is another prominent representative of the Salamanca School. Given the space Molina allocates to the issue of fair price in his book, he can be considered the scholastic author who most closely analyzed the problem. Molina (1597, p. 59) begins by analyzing the issue as follows:

> To know if the sale is fair or unfair, the price is attended, fundamentally. For this reason, we will examine in this dispute the price classes that exist and, in the next, those elements that will help us to judge more easily whether or not the price is fair.

Molina, like all scholastics, loses sight of the only criterion for whether the price was fair or not: *whether the transaction was carried out voluntarily or not*. None of the scholastic doctors mention this key point; all of them looked for other criteria.

Molina (Molina, 1597, pp. 59–60) distinguishes between two types of prices: 1) the legal, and 2) the natural, and defines them as follows:

> Things have a fair price, which is set by the public authority by law or public decree. [...] The generality of doctors, together with Aristotle, 5 *Ethic*.c. 7, calls this kind of price legal or legitimate, which means that it is a price set by law. Certainly, the legal price is indivisible, so that if, in exchange for the commodity being sold, more than that price were received, the sale would be unfair and the excess should be returned. What we have just said must be understood from when the law that established the legal price was a just law, which we will

> see later.
> Another price is that things have for themselves, regardless of any human law or public decree. Aristotle, in the *place cited*, and many other authors, call this price natural. [...] they call it natural because it is born of the same things, regardless of any human law or public decree, but depending on many circumstances with which it varies, and on the affection and esteem that men have for things according to the various uses for which they serve.
> [The natural price] it is characterized by not being indivisible and presenting a certain margin within which justice is fulfilled.
> [...] doctors distinguish three kinds of fair price: supreme or rigorous, medium or moderate, and negligible or pious. This distinction only takes place at the right natural price, not at the legitimate or legal price [...]. The price that is little less than half of the total margin, whether it is next to the rigorous or the pious, is computed as medium, and is called medium or moderate. The other two prices constitute the extreme margins.

For Molina, the legal price comes after the natural one and, in a way, it presupposes it; therefore, he begins by analyzing the second, even though the presentation was made in reverse. Molina also divides the natural price into two groups: 1) that of goods that are commonly being sold in a certain place or region and 2) that of goods that are sold for the first time. This thinker from Salamanca considers that there are several factors that influence the determination of the natural price of goods. In exposing the first one, Molina (1597, p. 65) follows St. Augustine almost word for word:

> It should be observed, in the first place, that the price is considered just or unjust not on the basis of the nature of things considered in themselves—which would lead to valuing them for their nobility or perfection—but on the grounds that they serve human utility; for to that extent men esteem them, and they have a price in commerce and exchange. [...] What we have just explained explains that mice, although by their nature nobler than wheat, are not esteemed or appreciated by men, because they are of no use to them. It is also explained that the house is usually sold fairly for a price higher than the price at which a horse and even a slave are sold, while both the horse and the slave are by nature much nobler than the house.

Secondly, Molina (1597, p. 66) *quotes the complacibilitas* of San Bernardino:

> We must observe, secondly, that the fair price of things is also not fixed by attending only to the things themselves insofar as they are of use to man, as if, caeteris paribus, it were the nature and necessity of the employment that is given to them that absolutely determined the amount of the price; but that amount depends, mainly, on the greater or lesser esteem in which men wish to have them for their use. Thus it is explained that the fair price of the pearl, which only serves to adorn, is greater than the fair price of a large amount of grain, wine, meat, bread or horses, even though the use of these things, by their very nature, is more convenient and superior to that of the pearl. [...] It is also explained that ancient objects of iron and clay that, gnawed by the passage of time, we do not estimate, the Japanese esteem them a lot for their antiquity. [...] These facts and others like them are due exclusively to the estimation by which men, in different places and places, wanted to appreciate one thing more than another; and it does not seem that the exchanges that men make according to the common estimation of things in their respective regions should be condemned, although sometimes it can move to laughter due to the primitiveness and customs of those who exchange them, this issue is already being dealt with when we talk about slaves. In short, the fair price of things depends, mainly, on the common esteem of the men of each region; and when in some region or place a good is usually sold, in a general way, for a certain price, without fraud, monopoly or other cunning or cheating, that price must be taken as a measure and rule to judge the fair price of that good in that region or place, provided that the circumstances with which the price justifiably fluctuates upwards or downwards do not change.

In this quote we can see that Molina is much clearer and more precise than his predecessors in what is meant by "fair price". Molina is much closer to identifying the fair price as equal to the market price.

In the following quote we can see how even Molina (1597, p. 67) analyzes the reasons for price fluctuations based on a rudimentary idea of supply and demand:

> It should be noted, thirdly, that there are many circumstances that cause the price of things to fluctuate upwards or downwards. Thus, for example, the scarcity of goods, due to the bad harvest or similar causes, raises the fair price. Abundance, however, makes it descend. The number of buyers who attend the market, in some times greater than in others, and their greater desire to buy, also make it rise. Likewise, the greater need that many have for some special good at a certain time, supposed to be the same amount of that good, causes its price to increase, as happens with horses, which are worth more when war is approaching than in times of peace. Similarly, the lack of money in a given place causes the price of other goods to fall, and the abundance of money causes the price to rise. The smaller the amount of money on a site, the more its value increases and, therefore, caeteris paribus, with the same amount of money you can buy more things.

Molina (1597, p. 70 italics added) already stops referring to the "moderate" profit of his predecessors and approves that traders can obtain "great" benefits due to luck or expertise. The following quote, criticizing those who use the cost of production as a parameter to determine the fair price, is very categorical about it:

> From what has been said so far, Scotus' opinion remains false, followed by Mayor. These authors affirm that the fair price that merchants must follow is not the one just exposed, but that all the expenses incurred by the merchants in buying, moving and preserving the goods must be computed; Moreover, the fair payment for the work carried out and for the diligence put in by the merchants, as well as for the dangers to which they were exposed, must also be computed, in a manner similar to how they would be computed if, motivated by the reward, they served the Republic with their actions. And these authors add: if the merchants sold the goods at the price that approximately follows from applying this criterion, they would be selling at the fair price, but if they exceeded it significantly, they would be selling at an unfair price. [...] That this rule and its corollary is false is evidenced by what has been said up to this moment, and so it is commonly rejected by doctors; for example, Soto, Juan de Medina, Covarrubias and Conrado. *Because the price of goods should not be estimated on the basis of the profit of the merchants or the damage thereof, but on the basis of the common estimate in the place where they are sold, considering all the concurrent circumstances*; And this is true even if traders, for lack of luck or skill, make little profit or suffer losses, or even if they make great profits because they have been lucky or have worked expertly.

In any case, Molina does not manage to totally abandon the idea that the free market could generate unfair prices, incurring some contradiction with respect to the previous paragraphs. In the following quotes Molina (1597, p. 75) argues that the fair price fluctuates within maximum and minimum margins:

> The doctors agree that he sins who sells above half the just price or buys below that half, and that, both in the external forum and in the interior of the conscience, he would be obliged to make restitution. [...] Thus, when someone buys below half the fair price, he is obliged to increase the price until he reaches the fair price or to withdraw from the contract, returning the merchandise and receiving the price delivered. When something was sold above half of the fair price, you are obliged to refund the excess charged over the fair price or to withdraw from the contract, delivering the full price received and recovering the merchandise, as preferred.

Below Molina (1597, pp. 84–86 emphasis added) agrees with this criterion of the fluctuation of the price just within a maximum and minimum range:

> [...] the common opinion of theologians and jurists rightly defends the opposite, that is, that whoever exceeds the limits of the just price or value of a good, whether in the sale, in the rent or in any other contract, sins and is obliged to return until he reaches the margin of the just price or value of the good, even if the difference does not exceed half the fair price. But sin will be mortal or venial according to the greater or lesser amount in which it departs from the just price. This is affirmed by St. Thomas, Cayetano, Conrad, Juan de Medina, Soto, Navarro, Covarrubias and many others whom Covarrubias and Navarro cite.
> We can prove this view, first of all, with the argument of St. Thomas. Because the sale and other similar contracts were thought and introduced into society for common utility, as Aristotle affirms, 1 *Polit*., since we need each other; now, what was introduced into society for the common utility of the parties should not tax one more than another, as natural law requires by prescribing that you do not do to another what you do not want to be done to you. to you. But it would be to tax one more than another if in the sale the equality between the good and the price paid for it – among whatever things are exchanged – was not kept, then it would be to go against commutative justice, which has the function of establishing equality in transactions. *For all this, leaving the total margin of the just price constitutes a sin against justice and forces restitution*.
> We can prove it, secondly, by resorting to the explanation that the jurisconsul Paul offers us from the first letter to the Thessalonians: "Let no one miss or take advantage of his brother at this point, for the Lord will take revenge for all this [...] ". Let no one, Paul says, oppress his brother by selling, for example, more than the good is worth or, in any other way, exchanging goods in a way that does not respect equivalence. And Agustín comments. By introspection, or also by experience of others, that famous Minus believed that the desire to buy low and sell high was common to all. But being in reality a vice, one can acquire at this point the justice with which to resist it. Thus, Augustine condemns it as a vice contrary to justice, adding that he met a man who paid for a codex a price much higher than that requested by the seller, ignorant of its price. As many think, this man was Augustine himself.
> We can prove it, thirdly, because, as the defenders of the opinion contrary to ours recognize and established in civil and canon law, if anyone were to sell for sixteen that whose rigorous fair price is at most ten, he would be obliged to return in the amount in which he exceeded ten units of the fair price, because it exceeded half of it. It follows, therefore, that he sinned against justice in all that amount, because, otherwise, if he only sinned in the amount in which he exceeded half of the fair price, he would be obliged to return only one. Therefore, we must conclude that everything that is received above the price ten is received in breach of justice and must be restored. It would certainly be strange if, having received sixteen for what is only worth ten, he was obliged to return six units, but having received only fifteen, nothing had to be restored.
> The doctors who defend the common opinion rightly point out that, if anyone exceeds the margin of the just price in good faith and out of ignorance, even if he does not commit any sin due to his ignorance, he is obliged to return the amount in which he exceeded the just price, at the moment when the error is discovered.

Finally, we have a paragraph showing again that Molina (1597, p. 88) did not fully believe in the market price as a fair price:

> As for “a thing is worth as much as it can be achieved by its sale”, it must be said that this statement is true if it is understood as follows: “how much can be achieved by its sale” within the fair margin, because interpreting it in this way would only be saying that the fair price is not indivisible.

We could conclude that, although Molina makes a fairly clear analysis of the reasons that caused changes in prices, he ends up, in some way, contradicting himself by following the scholastic tradition of the upper and lower limits that the “fair price” must have. Molina (1597, p. 69) disagrees with the assertion that a thing is worth as much as can be achieved by selling it without any limit and also does not trust the market to modify prices when the circumstances that he himself described very clearly as determinants of prices change:

> How much the price should increase or decrease when any of the circumstances mentioned vary, must be judged by the criterion of the prudent.

Gamacho, who wrote the introduction to Molina's book, has come to a good conclusion regarding the author's thought: "The few authors who have dealt with the molinist theory of the fair price usually jump, once utility as a source of economic value is mentioned, to the common estimate of the fair price, identifying this common estimate with the free market estimate [...]. You can't jump with the ease that these authors jump from the common estimate to the free market; it is necessary, before making this leap the identifier of both concepts, to analyze the content that is enclosed in them and check whether or not the contents allow identification".[xi] It should be quite obvious that if one does not take out of context the paragraphs of these authors and take them in isolation, the authors of the Salamanca school were quite far from identifying the fair price with the market price.

6.9. Luis Saravia de la Calle (1544 – ?)

This thinker of the Salamanca school has been identified with an "extreme subjectivism" and with the "culmination of a gradual movement" (Grice-Hutchsinson, 1952, p. 29). Perhaps this judgment is due to a very forceful paragraph of Saravia in which he resolutely rejects that the costs of production have anything to do with the values and prices of goods (as cited by Grice-Hutchsinson, 1952, pp. 81–82):

> Those who measure the just price by the labour, costs, and risk incurred by the person who deals in the merchandise or produces it, or by the cost of transport or the expense of travelling to and from the fair, or by what he has to pay the factors for their industry, risk, and labour, are greatly in error, and still more so are those who allow a certain profit of a fifth or a tenth. For the just price arises from the abundance or scarcity of goods, merchants, and money, as has been said, and not from costs, labour, and risk. If we had to consider labour and risk in order to assess the just price, no merchant would ever suffer loss, nor would abundance or scarcity of goods and money enter into the question. Prices are not commonly fixed on the basis of costs. Why should a bale of linen brought overland from Brittany at great expense be worth more than one which is transported cheaply by sea? Or take the cloth which I brought home from the fair on my horse and which cost me more than that which I carried in the cart. I have both bales in my shop and sell them at the same price, and it would be unjust to ask more for one than for the other, when both were woven at the same time and are of the same quality, colour, and so on. […] Why should a book written out by hand be worth more than one which is printed, when the latter is better though it costs less to produce? Finally, why, when the type of Toulouse is the best, should it be cheaper than the vile type of Paris? The just price is found not by counting the cost but by the common estimation.

As you can see, the paragraph is very forceful and would give the impression that Saravia affirms that the fair price is determined by the market. But, as in the case of Molina and Mercado, Saravia is simply suggesting that the rulers should look for a different criterion than costs to set prices. But prices are determined by the government (as cited by Grice-Hutchsinson, 1952, pp. 79, 82 italics added):

> EXCLUDING all deceit and malice, the just price of a thing is the price which it commonly fetches at the time and place of the deal, in cash, and bearing in mind the particular circumstances and manner of the sale, the abundance of goods and money, the number of buyers and sellers, the difficulty of procuring the goods, and the benefit to be enjoyed by their use, *according to the judgement of an honest man*.
> […]
> The public officials who fix the just price of goods do not consider costs but the scarcity or abundance of goods in the city.

As you can see, Saravia believes that the public official can set the right price, moreover, perhaps he believes that he "must" do it. The thinkers of the Salamanca school are not against the king's pricing, but they give different guidelines from that of costs so that public officials do not make mistakes.

In any case, from the theoretical point of view Saravia's analysis is basically correct, since it holds that prices are determined by supply and demand and that production costs have no influence on their determination. If supply and demand could be known, as the thinkers of Salamanca seem to assume, public officials would be in a position to set the same prices as the market.

6.10. Domingo de Soto (1495 – 1546)

In Soto's case it is even clearer that he was against price freedom. Ultimately, it seemed to him that it had to be accepted as an inevitable evil. Following Aristotle and St. Augustine, Soto argues that the prices of goods are not determined on the basis of their nature but on the basis of human needs. For this reason, men prefer to have grains and not mice in their house, as St. Augustine had already pointed out. Then he continues to reason (as cited by Grice-Hutchsinson, 1952, p. 85 italics added):

> In examining the problem of the just price, we have to consider many things, which fall into three classes. We must first take into account the demand which exists for the article, and its abundance or scarcity. *Next, we must bear in mind the labour, trouble, and risk which the transaction involves*. Finally, we must consider whether the exchange is for better or worse, to the advantage or disadvantage of the vendor, whether buyers are scarce or numerous, and all other things which a prudent man may properly take into account.

Soto is not as categorical as Saravia in eliminating the cost (or at least labor, hardship, and risk) of production in determining the fair price.

Following the thinkers we have already seen, Soto also argues that there are two types of fair prices (as cited by Grice-Hutchsinson, 1952, p. 85):

> The just price of an article is twofold: the legal and the natural price. The legal price is always indivisible; but the natural or discretionary price is, broadly speaking, divisible.

For Soto, the fair price must be fundamentally legal (as cited by Grice-Hutchsinson, 1952, p. 85):

> to see why it is necessary for prices to be controlled, we must realize that the matter is a primary concern of the republic and its governors, who, in spite of the arguments repeated above, ought really to fix the price of every article. But since they cannot possibly do so in all cases, the task is left to the discretion of buyers and sellers. The price which results is called the natural price because it reflects the nature of the goods, and the utility and convenience which they bring.

For Soto, the market price is not the best option; it is a *second best*, because public officials cannot set the prices of all products. As for the divisibility of the natural price, Soto follows the same criteria as his predecessors, although it is not clear whether the natural price is set by the market, through supply and demand, or by a prudent and fair man:

> Uncontrolled prices are not indivisible but enjoy a certain latitude within the bounds of justice, of which one extreme is called the 'rigid', the other the 'merciful', and the middle the 'moderate' price. If an article may justly be sold for ten ducats, then it may also be sold for eleven or for nine.
> The natural price is not determined by the judgement of the individual merchant, but by the opinion of prudent and fair-minded men.

In their eagerness to give criteria for the determination of the fair price, some scholastics made important theoretical advances that allowed them to explain the fluctuations of prices. Thus, they outlined a rudimentary law of supply and demand talking about the number of buyers and sellers, the urgency to buy or sell, the scarcity or abundance of commodities and money, and so on. The modern economist today knows that this explanation is imprecise and confuses, to cite an example, supply with number of sellers. But despite these inaccuracies, the scholastics made an important advance with respect to Aristotle's proposal about the fair price, and even with respect to the solution that St. Thomas Aquinas tried to give. Many times, religious or ideological enthusiasm has pigeonholed scholastic thinkers into a liberal tradition, tarnishing the true and valuable contributions of this school, especially that of Salamanca. These interpretations have uselessly exaggerated their important contributions. A global analysis indicates that the scholastics, including those in Salamanca, preferred price controls to free prices, which does not invalidate the fact that they traveled a long and valuable road from the first steps taken by Aristotle, with many and perhaps inevitable errors. Impeccable advances in the field of science cannot be expected of men. The scholastics made very good contributions to economic science, but from there to conclude that they had already developed the theory of marginal utility or that they identified the fair price with the market price there is a great difference that makes them lose perspective regarding their great contributions to economic thought; fundamentally, that necessity is the basis of value and that the number of sellers and buyers plays an important role in the formation of prices. This was not found in Aristotle, St. Augustine, St. Albertus Magnus, or St. Thomas Aquinas, but each of them was taking small and important steps that allowed them to move from a purely ethical or moral analysis of economic questions to a more theoretical one.

7. The Italians

In Italy there were some thinkers who made quite accurate approaches to the theory of value. One of the initiators of this current of thought was Gian Francesco Lottini (? – 1548) who was much influenced by Aristotle and was interested in political issues. The most famous trio was, however, Davanzati-Montanari-Galiani. The best contributions of these thinkers were made in the field of monetary theory. Theories of value and price attracted little attention, used only to the extent that they needed them to develop a currency theme. Anyway, a few quotes can give us an idea of his thoughts.

7.1. Bernardo Davanzati (1529 – 1606)

Davanzati can be considered as the founder of the Italian school, and his main theme is the value of money. In explaining the causes that influence the value of money, he refers, marginally, to the value of things. One of its most cited paragraphs is as follows (as cited by Sewall, 1901, p. 53):

> What is of more importance to life than wheat? Yet ten thousand grains of wheat sell for a grain of gold. How happens it, then, that things by nature so valuable are worth so little gold? And according to what principle does it happen that one thing is worth so much more than another?

Davanzati is clearly raising the famous paradox of value. However, although he tries to solve it, he does not manage to get to the center of the problem (as cited by Sewall, 1901, p. 54):

> A disgusting thing is a rat, but in the siege of Casalino one of them was sold for 200 florins on account of the great scarcity, and it was not dear because he who sold it died of hunger and he who bought it escaped.

An important difference that we can find between Davanzati and the scholastics (including the Italian scholastics, such as St. Antoninus of Florence) is that this thinker puts the origin of the usefulness of a good in man and not in things. As we saw, scholastics prefer to talk about the ability of things to meet needs, thus giving the theory of value a more objectivist touch, even though they are talking about utility.

7.2. Geminiano Montanari (1633 – 1687)

Montanari, like Davanzati, deals mainly with monetary theory and marginally with value, and makes clear his subjectivist position, as shown by the following quotes (as cited by Sewall, 1901, p. 56):

> I understand a thing to abound, not when as a matter of fact there is a great quantity of it absolutely, but when there is a great abundance of it in relation to the need, esteem, and desire which men have for it.

He then adds (as cited by Sewall, 1901, pp. 56–57):

> […] given the amount of money in circulation, to change the esteem that men have for things changes price, it becoming higher if desire increases, and lower if the good fall into disfavor.

7.3. Ferdinando Galiani (1728 – 1787)

According to Kauder (1965, p. 27) with "Galiani and Turgot subjective valuation becomes the keystone for a system of thinking. This theory had to be defended against the new classical system which was based on labor costs." Later we will see that the classical economists were misunderstood. It is true that they made many mistakes and inconsistencies, but in the theory of value they were not as wrong as is generally believed. However, Kauder is right that Galiani made an important contribution to the theory of value, at least more advanced than those of his other two Italian colleagues. The following quotes show Galiani's eminently subjective position. First of all, it should be noted that he found erroneous statements such as the following: "a natural calf is more noble than a golden calf, but how much less prized" or "a pound of bread is more useful than a pound of gold."[12] According to Galiani these statements ignore (as cited by Sewall, 1901, p. 93):

> […] the fact that more or less useful are relative terms and that their import corresponds to the different states of persons.

Galiani defines *utility* as "[...] the aptitude that a thing has for procuring us happiness",[13] and in the following paragraph he makes an outline of a theory of value based on the *utility-scarcity* binomial, although without explicitly stating marginal utility:

> Air and water have no value because they have no scarcity. A bag of sand from the beaches of Japan would be rare, but would be of no value because it would have no utility.[xii]

Finally, he also explains the effects of fashion on the value of things (as cited by Sewall, 1901, p. 93):

> […] [fashion] has the effect of causing the utility of things to vary by causing the enjoyment caused by their use to vary.

Galiani circled very closely on the subject of marginal utility, referring to the concepts of utility and scarcity but without formally formulating the theory, and made virtually no mention of how it related to the formation of prices.

7.4. Daniel Bernoulli (1700 – 1782)

Bernoulli was a contemporary of Galiani and wrote an article that has made some consider him the discoverer of marginal utility theory. According to Kauder (1965, p. 32): "In 1738 Daniel Bernoulli discovered marginal utility for the first time." The article is called "Specimen Theoriae Novae de Mensura Sortis." The topic

[12] As cited by Sewall (1901, p. 93).
[13] As cited by Sewall (1901, p. 93).

of the article is decision-making under risky conditions. The supposed discovery of the theory of marginal utility attributed to him by Kauder is, within the article, an introduction to the central theme.

Bernoulli's paragraphs quoted by Kauder (1965, p. 32) to support his view are as follows:

> A rich prisoner who possesses two thousand ducats but needs two thousand ducats more to repurchase his freedom, will place a higher value on a gain of two thousand ducats than does another man who has less money than he.

While it "may" be true that the prisoner values more two thousand additional ducats than another man who has less money, this is not a universal law and Bernoulli himself claims that cases like these are exceptions. But then he takes a totally invalid step saying:[14]

> The profit resulting from any small increase in wealth will be inversely proportional to the amount previously owned.[xiii]

Marginal utility theory refers to specific goods and not to people's "wealth" or "income." Marginal utility theory has to be able to explain why people value one good more than another. Bernoulli did not say a single word about this central point. Mises's (1949, p. 126) statement is more valid than Kauder's when he states that: "[...] neither Bernoulli nor the mathematicians and economists who adopted his mode of reasoning could succeed in solving the paradox of value."

The thinkers of the Italian school were, in comparison with the scholastics, rather more subjectivist in explaining the origin of utility. They also came as close as some scholastics to the theory of marginal utility. As for the formation of prices, there is no detailed explanation; the scholastics were far superior in this field.

8. The French

8.1. Richard Cantillon (? – 1717)

For Cantillon things have a double price, or exchange-value, an intrinsic one (which could be associated with the fair price of Aristotle and the scholastics) and another determined by the need of individuals which he calls "market price." As we will see later, the classics made the same distinction. In the following paragraph Cantillon (1755, pp. 30–31) explains how the real price of things is determined and the differences it may have with the market price:

> By these examples and inductions it will, I think, be understood that the Price or intrinsic value of a thing is the measure of the quantity of Land and of Labour entering into its production, having regard to the fertility or produce of the Land and to the quality of the Labour.
> But it often happens that many things which have actually this intrinsic value are not sold in the Market according to that value: that will depend on the Humours and Fancies of men and on their consumption.
> If a gentleman cuts Canals and erects Terraces in his Garden, their intrinsic value will be proportionable to the Land and Labour; but the Price in reality will not always follow this proportion. If he offers to sell the Garden possibly no one will give him half the expense he has incurred. It is also possible that if several persons desire it he may be given double the intrinsic value, that is twice the value of the Land and the expense he has incurred.
> If the Farmers in a State sow more corn than usual, much more than is needed for the year's consumption, the real and intrinsic value of the corn will correspond to the Land and Labour which enter into its production; but as there is too great an abundance of it and there are more sellers than buyers the Market Price of the Corn will necessarily fall below the intrinsic price of Value. If on the contrary the Farmers sow less corn than is needed for consumption there will be more buyers than sellers and the Market Price of corn will rise above its intrinsic value.
> There is never a variation in intrinsic values, but the impossibility of proportioning the

[14] Also see Mises (1949, pp. 125–126).

> production of merchandise and produce in a State to their consumption causes a daily variation, and a perpetual ebb and flow in Market Prices. However in well organized Societies the Market Prices of articles whose consumption is tolerably constant and uniform do not vary much from the intrinsic value; and when there are no years of too scanty or too abundant production the Magistrates of the City are able to fix the Market Prices of many things, like bread and meat, without any one having cause to complain.

In Cantillon we can observe an important analytical advance with respect to the scholastics. There is virtually no doubt about what he means, regardless of whether his theory is correct or not. When he talks about "intrinsic value" he refers to the long-term price, the price at which the market tends. The use or subjective value is implicit in the explanation of the "market price", since for Cantillon this varies, among other things, according to the needs of buyers and sellers. Cantillon (1755, pp. 119–120) explains the determination of market prices as follows:

> Suppose the Butchers on one side and the Buyers on the other. The price of Meat will be settled after some altercations, and a pound of Beef will be in value to a piece of silver pretty nearly as the whole Beef offered for sale in the Market is to all the silver brought there to buy Beef.
> This proportion is come at by bargaining. The Butcher keeps up his Price according to the number of Buyers he sees; the Buyers, on their side, offer less accordingly as they think the Butcher will have less sale: the Price set by some is usually followed by others. Some are more clever in puffing up their wares, others in running them down. Though this method of fixing Market prices has no exact or geometrical foundation, since it often depends upon the eagerness or easy temperament of a few Buyers or Sellers, it does not seem that it could be done in any more convenient way. It is clear that the quantity of Produce or of Merchandise offered for sale, in proportion to the demand or number of Buyers, is the basis on which is fixed or always supposed to be fixed the actual Market Prices; and that in general these prices do not vary much from the intrinsic value.
> Let us take another case. Several maîtres d'hôtels [at Paris] have been told to buy green Peas when they first come in. One Master has ordered the purchase of 10 quarts for 60 livres, another 10 quarts for 50 livres, a third 10 for 40 livres, and a fourth 10 for 30 livres. If these orders are to be carried out there must be 40 quarts of green Peas in the Market. Suppose there are only 20. The Vendors, seeing many Buyers, will keep up their Prices, and the Buyers will come up to the Prices prescribed to them: so that those who offer 60 livres for 10 quarts will be the first served. The Sellers, seeing later that no one will go above 50, will let the other 10 quarts go at that price. Those who had orders not to exceed 40 and 30 livres will go away empty.
> If instead of 40 quarts there were 400, not only would the Maîtres d'hôtels get the new Peas much below the sums laid down for them, but the Sellers in order to be preferred one to the other by the few Buyers will lower their new Peas almost to their intrinsic value, and in that case many Maîtres d'Hôtels who had no orders will buy some.
> It often happens that Sellers who are too obstinate in keeping up their price in the Market, miss the opportunity of selling their Produce or Merchandise to advantage and are losers thereby. It also happens that by sticking to their prices they may be able to sell more profitably another day.
> Distant Markets may always affect the prices of the Market where one is: if corn is extremely dear in France it will go up in England and in other neighbouring Countries.

The explanation that Cantillon gives us of the formation of prices in the market follows the guidelines that the scholastics had given, since it refers to the number of buyers, sellers, and merchandise. However, we can see an important advance in the explanation of how and why these quantities make prices rise or make them fall. The explanation of the scholastics seems somewhat superficial or hasty compared to that of Cantillon.

Just as scholastics were concerned about the "fair price", with Cantillon comes the concern for "real value", or long-term. We could say that the "real value" of Cantillon is the equivalent of the "fair price" of the scholastics;

after all, both are supposed to reflect the "true" value of things. That real value Cantillon identifies in the amount of land and labor employed in producing the good.

8.2. Anne Robert Jacques Turgot (1727 – 1781)

Turgot analyzes the issue of value and price in an unfinished article, "Valeur et monnaies", and in *Réflexions sur la formation et la distribution des richesses*. Let's start with the following quote from the article (as cited by Sewall, 1901, p. 97):

> It (*valor*) expresses that goodness relative to our needs by which goods and gifts of nature are regarded as adapted to our enjoyment, to the satisfaction of our desires. One says that a stew is worth nothing when it is bad to the taste. […] The adjectives bad, mediocre, good, excellent, characterize the different degrees of this kind of value. […] Although this goodness may be always relative to us, we have nevertheless in view, in explaining the word value, a real quality, intrinsic to the object by which it is suited to our usage.

This quote reflects a certain degree of inconsistency because he puts an objective ingredient in utility. I have already made some reflections that goods do not have "intrinsic" qualities to satisfy needs. It is individuals who "see" in an object the ability to satisfy their particular needs. As we have already said, an object has as many uses as the mind can invent; the only objective is its physical qualities, but the needs they can satisfy depend on the human mind perceiving and relating the physical qualities to the need to be satisfied. In the following quote Turgot deviates completely from the subjective element (as cited by Sewall, 1901, pp. 98–99):

> [another determinant of value is] the greater or less difficulty which man faces in procuring the object of his desire, for it is very evident that, between two things equally useful and equally excellent, that which requires more trouble to acquire appears to him much more precious, and he will employ more care and effort to procure this thing for himself.
> This is the reason why water in spite of its usefulness is not regarded as precious in the country where it abounds […] but in the desert it has an infinite price.[15]

Some have interpreted Turgot as referring to "scarcity" in this paragraph; such an interpretation may be justified by the following quotation. However, it could also be interpreted as referring to the "amount of labor effort" required to produce a good. The expression "greater or lesser difficulty faced by man" is quite confusing. In the following paragraph, on the other hand, it makes explicit reference to scarcity (as cited by Sewall, 1901, p. 99):

> It is necessary to remark, that this esteem attached to scarcity is again founded on a particular kind of utility, because it is more useful to provide one's self in advance with a thing difficult to obtain […].

In the quote Turgot seems to consider as synonyms the scarcity and the difficulty of acquisition. While in some cases they may coincide, in others they may not. For example, a good can be produced at a high cost, which makes it scarce. But, as David Ricardo pointed out, there are also goods that can no longer be produced; further production is not difficult, but impossible (e.g. a painting or sculpture). Anyway, Turgot makes the mistake of thinking that the greater difficulty of acquisition gives more value to things, when in reality it is not only the other way around, but the costs are also subjective. Later we will see the solution that the marginalist schools gave to this problem. In the following quote Turgot returns to the same line of reasoning (as cited by Sewall, 1901, p. 99):

> […] that which he Will have more trouble to obtain appears to him more precious […]

[15] Compare with Aristotle (1908, bk. III): "[…] the more conspicuous good is more desirable than the less conspicuous, and the more difficult than the easier: for we appreciate better the possession of things that cannot be easily acquired."

In the book, *Reflexions*..., he simply describes how prices are determined in the market, he does not dabble in the subject of use value. To do this, Turgot (1774, pp. 32–33) uses the example of isolated individuals (a buyer and a seller), explaining, in addition, why the exchange occurs, and then goes on to analyze the more general case:[16]

> Reciprocal wants first introduced exchanges of what we possessed, for what we stood in need of; one species of provision was bartered for another, or for labour. In exchanging, it is necessary that each party is convinced of the quality and quantity of every thing exchanged. In this agreement it is natural that every one should desire to receive as much as he can, and to give as little ; and both being equally mailers of what they have to barter, it is in a man's own breast to balance the attachment he has to the thing he gives, with the desire he feels to possess that which he is willing to receive, and consequently to fix the quantity of each of the exchanged things. If the two persons do not agree, they mud relax a little on one side or the other, either by offering more or being content with less. I will suppose that one is want of corn and the other of wine; and that they agree to exchange a bushel of corn for fix pints of wine. It is evident that by both of them, one bushel of corn and fix pints of wine are looked upon as exa6lly equivalent, and that in this particular exchange, the price of a bushel of corn is fix pints of wine, and the price of fix pints of wine is one bushel of corn. But in another exchange between other men, this price will be different, accordingly as one or the other of them shall have a more or less pressing want of one commodity or the other; and a bushel of corn maybe exchanged against eight pints of wine, while another bushel shall be bartered for four pints only. Now it is evident, that not one of these three prices can be looked on as the true price of a bushel of corn, rather than the others; to each of the dealers, the wine he has received was equivalent to the corn he had given. In a word, so long as we consider each exchange independent of any other, the value of each thing exchanged has no other measure than the wants or desires of one party weighed with those of the other, and is fixed only by their agreement.

Certain Aristotelian guidelines can be noted at the origin of the exchange although Turgot is more explicit and clearer. The point where Turgot takes a fundamental step is in the rejection of there being a "real" (let alone "fair") price of things. Each transaction has its price and neither of them is better than the other, since the parties voluntarily often agreed. But Turgot makes the mistake of assuming that the parties, once they agreed, see the amount of goods they exchange as "exactly equivalent." In reality, the parties carry out the exchange because they value more the amount of merchandise, they receive than the one they are delivering, as Turgot (1774, p. 34) himself explains, and therefore it cannot be that they see them as equivalent: both parties gain from the exchange.

> Meantime it happens that many individuals have wine to dispose of to those who possess corn. If one is not willing to give more than four pints for a bushel, the proprietor of the corn will not exchange with him, when he shall know that another will give fix or eight pints for the fame bushel. If the former is determined to have the corn, he will be obliged to raise his price equal to what is offered by others. The fellers of wine profit on their fide by the competition among the fellers of corn. No one resolves to part with his property, before he has compared the different offers which are made to him, of the commodity he (lands in need of, and then he accepts of the bell offer. The value of the wine and corn is not fixed by the two proprietors with refpe8; to their own wants and reciprocal abilities, but by a general balance of the wants of all the fellers of corn, with those of all the fellers of wine. For those who will willingly give *eight pints* of wine for a *bushel* of corn, will give but four when they shall know that a proprietor of corn is willing to give *two bushels* for eight pints. The medium price between the different offers and the different demands, will become the current price to which all the

[16] Also, in his article "Valeur et monnaies" he makes similar reflections regarding the origin of the exchange when he says that the greater estimation of what is going to be received with respect to what is delivered "is essential to the exchange, for it is the sole motive for it. Each one would remain as he was if he did not find an interest, a personal profit, in the exchanging" (cited by Sewall, 1901, p. 102).

> buyers and sellers will conform in their exchanges ; and it will be true if we fay, that fix pints of wine will be to every one the equivalent, for a bushel of corn, that is, the medium price, until a diminution of supply on one side, or of demand on the other, causes a variation.

We can observe that the explanation of price formation is very precise and is explained exclusively in subjective terms, that is, individual valuations. At no time does Turgot introduce costs, labor, risks or transportation, as the scholastics did (except in the case of Saravia de la Calle). In any case, it does not refer to marginal utility and does not distinguish between short-term and long-term prices. This distinction, although incorrectly stated, is clearer in Cantillon.

8.3. Étienne Bonnot de Condillac (1714 -1780)

Condillac has been a rather ignored thinker by historians of economic thought. Not because he has been neglected to be mentioned, but because he has not been given the importance he deserves. As we will see, he was the one who came closest to a clear and precise approach to the theory of value and prices. Condillac separates the concepts of value and price very well and at the same time explains the relationship between them (as cited by Sewall, 1901, p. 108)

> According to this utility we esteem it more or less fit for the uses in which we wish to employ it. Now this esteem is what we call value. To say that a thing has worth, is to say that it is good, or that we esteem it good for some use.

Below we can see how clearly Condillac departs from the objective approach of utility that the scholastics had (as cited by Sewall, 1901, pp. 108–109):

> In abundance, one feels the need less, because one does not fear shortage. For an opposite reason one feels it more in scarcity and in dearth. The value of things increases then in scarcity, and diminishes in abundance. […] the more or less of value, utility remaining the same, is founded on the scarcity of things or on their abundance, or rather on the opinion that we have of their scarcity or their abundance. I say *utility remaining the same*, because it is plain enough, that in supposing them equally rare or equally abundant, one judges them more or less of value, according as one judges them more or less useful.

It can be clearly seen that Condillac is careful not to associate scarcity with something objective, i.e., the available quantity of the good, but explicitly emphasizes "the *opinion that* we have of their scarcity or things or on their abundance." This is a fundamental theoretical contribution, difficult to find in previous authors. The idea of scarcity as a subjective judgment and not as an objective quantity is reformulated very clearly in the following paragraph, where he also denies that scarcity alone gives value to things (as cited by Sewall, 1901, p. 109):

> I conceive that a thing is scarce, when we judge that we have not enough of it for our use; that it is abundant, when we judge that we have more than we need. In fine, I conceive that a thing of which one makes nothing and of which one can make nothing has no value, and on the contrary a thing has value when it has utility; and if it has not that by which it is useful, it will not have a greater value in scarcity and a less in abundance.

He also explicitly rejects that costs have an influence on value, and puts them in their correct causal relationship (as cited by Sewall, 1901, p. 109):

> […] a thing does not have value because it costs, as one may suppose, but it costs, because it has value.

Saravia de la Calle had come to the same conclusion but with less analytical precision. Finally in the following quotes we can appreciate how Condillac identifies prices as a result of individual valuations (as cited by Sewall, 1901, p. 110):

> When all in general agree to give so much wine for so much corn, then the corn in relation to the wine and the wine in relation not the corn have each a value which will be recognized generally by all. […] Now this relative value generally recognized in the exchanges is that which is the foundation of the price of things. The price is then the only the estimated value of one thing in relation to the estimated value of another […] the things are reciprocally the price of one another.

It then holds that value predates any exchange or price (as cited by Sewall, 1901, p. 111):

> When we have need of a think it has value; it has it by that alone, and before there is any question of making an exchange […] It is only in exchange that it has a price […] and its price […] is the estimation that we make of its value when in exchange we compare its value with the value of another.

Condillac achieved a very high degree of clarity on the questions of value and price, even without having formally expounded the theory of marginal utility. He made a very clear distinction between value and price and established a correct causal relationship between the two. He is also the clearest in clearing up common confusions about how scarcity intervenes in the determination of value; in any case, Turgot surpasses it in the explanation of the formation of prices.

The French achieved a better exposure of the theory of value and price than the Italians, and far superior to that of the scholastics. Grice-Hutchinson's (1982, p. 153) claim that Condillac and Turgot "agree to minimize the effects of the cost of production on the price [...]" does not seem very fair.[17] It is more correct to say that some scholastics agreed to "minimize" the effects of costs on prices. Condillac and Turgot eliminate, rather than minimize, the influence of costs from their analysis,

9. The Pre-Classic English

9.1. William Petty (1623 – 1687)

In some English mercantilist authors, you can find, in passing, some mentions of the theory of value. While these mentions are not substantial like those of the French, they hint at some underlying ideas of value and price (Petty, 1899, pp. 44–45):

> […] all things ought to be valued by two natural Denominations, which is Land and Labour; that is, we ought to say, a Ship or garment is worth such a measure of Land, with such another measure of Labour; forasmuch as both Ships and Garments were the creatures of Lands and mens Labours thereupon: This being true, we should be glad to find out a natural Par between Land and Labour, so as we might express the value by either of them alone as well or better then by both, and reduce one into the other as easily and certainly as we reduce pence into pounds.

Petty is not referring so much to the origin or cause of the value as to the way it is measured. As we shall see, this distinction between cause and measure caused much confusion in the writings of classical economists. Anyway, Petty (1899, p. 90)seems to have implicit a theory of prices based on the costs of production, fundamentally labor, when he states:

> Corn will be twice as dear where are two hundred Husbandmen to do the same work which

[17] Same idea is present in Grice-Hutchinson (1952, p. 63).

> an hundred could perform: the proportion thereof being compounded with the proportion of superfluous expence, (viz. if to the cause of dearness abovementioned be added to the double Expence to what is necessary) then the natural price will appear quadrupled […]

While these paragraphs may give us an idea about the concept that seemed to predominate in England, Petty touches too marginally on the subject of value and price to give transcendence to his thinking.

9.2. John Locke (1632 – 1704)

In his *Second Treatise of Government* (1690) John Locke also holds a theory of prices based on the cost of production, with special emphasis on labor. Locke (1689, pp. 230–231) argues that despite the large amount of land in America, the kings of this continent live worse than a day laborer in England and then says:

> To make this a little clearer, let us but trace some of the ordinary provisions of life, through their several progresses, before they come to our use, and see how much they receive of their *value from human industry*. Bread, wine and cloth, are things of daily use, and great plenty; yet notwithstanding, acorns, water and leaves, or skins, must be our bread, drink and clothing, did not labour furnish us with these more useful commodities: for whatever bread is more worth than acorns, wine than water, and *cloth* or *silk*, than leaves, skins or moss, that is wholly *owing to labour* and *industry*; the one of these being the food and raiment which unassisted nature furnishes us with; the other, provisions which our industry and pains prepare for us, which how much they exceed the other in value, when any one hath computed, he will then see how much *labour makes the far greatest part of the value* of things we enjoy in this world: and the ground which produces the materials, is scarce to be reckoned in, as any, or at most, but a very small part of it; so little, that even amongst us, land that is left wholly to nature, that hath no improvement of pasturage, tillage, or planting, is called, as indeed it is, waste; and we shall find the benefit of it amount to little more than nothing.

In this quote it can be clearly seen that Locke had a theory of prices based on the hours of work consumed. In any case, while it is true that in his *Second Treatise* he expounded a labor-based theory of exchange-value, it is also true that, as in the case of Aristotle, this is a totally marginal issue in his book. Just as Aristotle was concerned with justice, Locke was concerned with the limits to the power of kings. His mention of the subject of price (value) is so short that he cannot be said to have developed a theory about it. The only thing that can be said is that he believed that the amount of labor determined the rate of exchange between the various goods.

However, in 1696 in *Some Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money*, he states that (as cited by Cannan, 1929, p. 158):

> The price of any commodity rises or falls by the proportion of the number of buyers and sellers. This rule holds universally in all things that are to be bought and sold, bating now and then an extravagant fancy of some particular person, which never amounts to so considerable a part of trade as to make anything in the account worthy to be thought an exception to this rule.
>
> The vent of anything depends upon its necessity or usefulness as convenience or opinion, guided by fancy or fashion, shall determine. […]
>
> There is nothing more confirmed by daily experience than that men give any portion of money for whatsoever is absolutely necessary rather than go without it. And in such things the scarcity of them alone makes their prices.

In this quote you can see a notable change from the *Second Treatise*. Here Locke seems to abandon the theory of price-labor altogether to explain the formation of prices, albeit rudimentarily, only by supply and demand. There is no mention of labor. In the *Second Treatise* he argued that practically only labor determines the "value" of things. Being that *Some Considerations*... comes after the *Second Treatise*, it might become unfair to attribute to Locke a labor-based theory of price.

9.3. John Law (1671 – 1729)

This thinker was directly influenced by Locke's *Some Considerations*. His book *Money and Trade Considered* (1705) is devoted to monetary issues and, therefore, also the subject of prices concerns him secondarily and in a few short paragraphs. In the following quote we can see not only Locke's influence, but the way Law (1705, pp. 7–8) poses and resolves the paradox of value on the basis of utility and scarcity:

> Goods have a value from the uses they are applied to; and their value is greater or lesser, not so much from their more or less valuable, or necessary uses, as from the greater or lesser quantity of them in proportion to the demand for them. For example, water is of great use, yet of little value; because the quantity of water is much greater than the demand for it. Diamonds are of little use, yet of great value, because the demand for diamonds is much greater, than the quantity of them.
> Goods of the same kind differ in value, from any difference in their quality, one horse is better than another horse. Barley of one country is better than barley of another country.
> Goods change their value, from any change in their quantity, or in the demand for them. Of oats are in greater quantity than last year, and the demand the same, or lesser, oats will be less valuable.
> Mr. Locke says, the value of goods is according to their quantity in proportion to their vent. The vent of goods cannot be greater than the quantity, but the demand may be greater: if the quantity of wine brought from France be a ton, and the demand be for 500 ton, the demand is greater than the vent; and the 100 ton will sell at a higher price, than if the demand were only equal to the vent. So the prices of goods are not according to quantity in proportion to the vent, but in proportion to the demand.

As we will see, Adam Smith poses and solves the paradox of value in the same way, and with the same examples (water and diamonds) as Law. So, this seemed to be the predominant or commonly accepted idea at this time in Britain.

While both Locke and Law explained the formation of prices on the basis of supply and demand, the analysis is quite rudimentary. We already saw that Turgot, who is somewhat later than these thinkers, perfected a little the exposure of the price formation process. In all cases, except to some extent in Condillac, the "value" is still not considered or related to the "price" of the goods.

10. The Classics

With the economists of the classical school, it can be said that economic science begins to identify itself as a science independent of morality and politics. The classics develop, with all their errors, providing analyses with a tremendous analytical or theoretical power, and moral judgments take a back seat.

The classics made many theoretical errors and were involved in several contradictions. However, as far as the theory of value was concerned, they were misunderstood by most historians of economic thought. To them was attributed a labor theory of value when, in fact, they did not have a theory of value [of use] nor a labor theory of value [of use].[18] With the quotes below, I will try to show that the classics had only a theory of value of exchange or price and that it was also a theory based on the cost of production and not on labor.

10.1. Adam Smith (1723 – 1790)

Like all the classics, Adam Smith (1776, p. 44) continued the distinction between use value and exchange value that Aristotle had initiated.

> The word VALUE, it is to be observed, has two different meanings, and sometimes expresses

[18] For example, Emil Kauder says: "Like many other proponents of the theory of labor, Smith combined the Calvinist glorification of labor with the Aristotelian-Thomistic theory of fair price." (TN: Original text and reference by Kauder was unavailable. My translation).

> the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called 'value in use;' the other, 'value in exchange.'

Smith says this about value or use value in *The Wealth of Nations*. From then on, he is concerned only with explaining how "exchange value" that is, the "price" of commodities, is determined. Smith, like all the classicals, took it for granted that for a thing to have exchange value, it must have use value. If an item is of no use, it cannot have exchange value.[19] The messy way in which Smith expounds his ideas, and the ambiguous terminology he uses, may have confused many historians.[20] After distinguishing between use value and exchange value, Smith (1776, pp. 44–45) expresses the famous value paradox:

> The things which have the greatest value in use have frequently little or no value in exchange; and, on the contrary, those which have the greatest value in exchange have frequently little or no value in use. Nothing is more useful than water: but it will purchase scarce any thing; scarce any thing can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it.

It is generally believed that Smith could not solve this paradox according to which things of great utility can have a low or no price, and things of little utility can have a high price. But in reality, Smith (1978, p. 358) had already solved this paradox imperfectly (and he certainly was not the first) in his *Lectures on Jurisprudence* (developed between 1762-63):

> […] a thing of no use, as (a) lump of clay, brought into the market will give no price, as no one demands it. If it be useful the price will be regulated according to the demand, as this use is general or not, and the plenty there is to supply it. A thing which is hardly of any use, yet if the quantity be not sufficient to supply the demand, will give a high price; hence the great price of diamonds. Precious metals, which are certainly not so usefull as gold, bear a far greater price, partly on this account. Abundance on the other hand such as does more than supply all possible demands, renders water of no price at all and other things of a price the next thing to nothing. The scarcity on the other hand raises the price immoderately.

As you can see, necessity is not only present in the price of things, but for Smith, it is a necessary condition for things to have a price. It is the basis or foundation of prices. In any case, he did not formulate a theory of marginal utility and even speaks of an "immoderate" price increase, which implies a contradiction with the global context of his thought. After distinguishing between use value and exchange value in *The Wealth of Nations,* he forgets the first and reflects on the second. But his reflections have two parts: 1) the *determinants* of exchange value and 2) the *measure* of exchange value. For example, it is not the same to reflect on what time or space is and on how time or space can be measured; they are different topics. Almost all of the classics agreed that the best measure of exchange value was the number of hours of labor it took to produce a product. But this is not the same as saying that the number of hours worked is the cause or origin of the exchange value. Much more significant is the mistake of claiming they had a labor theory of value if by value is meant use value. The classics were a far cry from this point of view. Chapter V of *The Wealth of Nations* is called "Of the real and nominal Price of Commodities; or of the Price and Labour, and their Price in Money." What Smith does in this chapter is argue that, because of its changes, the purchasing power of money is not a good measure of the price of things. Instead, labor is going to give us a real measure of price. Regardless of whether Smith's proposal is correct or not, what is certain is that this chapter is devoted to exploring a good *measure* of exchange value and

[19] Francis Hutchenson, Adam Smith's teacher, held that: "The basis of every price must consist of some suitability of goods to provide some utility or some pleasure in life; without this aptitude the products cannot have any value. Taking the foregoing for granted, the price of things will be formed on the basis of the demand to which they are subject, and of the difficulty in acquiring them"; quoted by Grice-Hutchinson (1982, p. 160) [TN: My translation]. Grice-Hutchinson attributes Hutchenson's influence to the scholastics, but it is more correct to assume that since this was such a widespread idea it is very difficult to attribute it to any owner or discoverer.

[20] Not in vain Jean-Baptiste Say (1880, p. xix) referred *to The Wealth of Nations* as a book that "can only be considered as an immethodical assemblage of the soundest principles of political economy […]." Smith's writing disorder may be a true reflection of his personality. There are numerous anecdotes that refer to extreme cases of distraction; see John Rae (1977, pp. 237, 246, 259, 330).

not its origin; anyway, it does so in such a confusing and inconsistent way that it is not surprising that it can cause confusion to the hurried reader. Smith begins by stating that:

> The value of any commodity, therefore, to the person who possesses it, and who means not to use or consume it himself, but to exchange it for other commodities, is equal to the quantity of labour which it enables him to purchase or command. Labour, therefore, is the real measure of the exchangeable value of all commodities.
> The real price of every thing, what every thing really costs to the man who wants to acquire it, is the toil and trouble of acquiring it. What every thing is really worth to the man who has acquired it, and who wants to dispose of it or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people.

The paragraph is quite confusing; the word "value" seems to have three meanings at the same time: 1) use value, when it says "[w]hat every thing is really worth to the man who has acquired it", 2) price, when it says "[t]he value of any commodity […] is equal to the quantity of labour which it enables him to purchase or command", and 3) measured, when it says "[l]abour, […] is the real measure of the exchangeable value of all commodities." In any case, one thing very clear: he is talking about exchange value (price) and not use value, or simply value. The reason for Smith's lack of clarity is quite clear in the chapter that follows, devoted to the "determinants" of exchange value.

To understand what Smith meant, let's look at the following example. If for good A you usually pay in the market \$100, and with \$100 you can also buy three units of good B and two of good C, hardly anyone would sell A below \$100, because you would get fewer units of goods B and C. What good A "is worth" to its possessor is what it can get in return for it. In this example money will be "measuring" how many units of goods B and C can be purchased. The problem is that for Smith (1776, pp. 49–50) money, which in his time was gold and silver, was not a good "measure" of value:

> Gold and silver, however, like every other commodity, vary in their value, are sometimes cheaper and sometimes dearer, sometimes of easier and sometimes of more difficult purchase. The quantity of labour which any particular quantity of them can purchase or command, or the quantity of other goods which it will exchange for, depends always upon the fertility or barrenness of the mines which happen to be known about the time when such exchanges are made. The discovery of the abundant mines of America reduced, in the sixteenth century, the value of gold and silver in Europe to about a third of what it had been before. As it cost less labour to bring those metals from the mine to the market […] so a commodity which is itself continually varying in its own value, can never be an accurate measure of the value of other commodities.

Twentieth-century economists have tried to solve this problem of changes in the purchasing power of money through deflators that allow calculations in a constant currency. Smith attempted to solve this problem, wrongly, through a fixed and invariable measure: the labor time it takes to produce each good. Despite everything, he himself admits that the measurement unit "work" presents many problems, such as the different professions, the degree of preparation, differences in individual skills, and so on.

To return to the above example, instead of "measuring" in money the amount of goods B and D that a unit of A can buy, Smith (1776, p. 51) measures it in working hours because he assumes that it is a more stable measure than money:

> Labour alone, therefore, never varying in its own value, is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared. It is their real price; money is their nominal price only.

Smith chooses labor as a "measure" of the exchange value of all goods because he considers it the original "currency." In primitive societies, what cost men a good was the labor time necessary to acquire it:

> Labour was the first price, the original purchase-money that was paid for all things. It was not

> by gold or by silver, but by labour, that all the wealth of the world was originally purchased; and its value, to those who possess it and who want to exchange it for some new productions, is precisely equal to the quantity of labour which it can enable them to purchase or command.

Just as in the previous example, hardly anyone would sell good A for less than \$100 because, if he did, he could buy less of other commodities, in the same way hardly anyone would sell, in that primitive society, a good for fewer hours of work than it costs to produce it because this would mean that he is losing and that it would be convenient for him to dedicate himself to producing other goods. To take the example to an extreme, if the production of good A requires 8 hours of work and that of B requires 1 hour, no one would want to give a unit of A in exchange for one of B. If this were so, everyone would begin to produce good B.

After explaining the best measure of exchange value, Smith devotes the next two chapters to analyzing its *determinants*. Smith, like all classics, distinguished between the long-run price, or "natural price," of goods and the short-term price, or "market price." Chapter VI of *The Wealth of Nations* is called "Of the component Parts of the Price of Commodities" and is devoted to explaining the "natural price" of goods. The beginning of the chapter again shows how Smith (1776, p. 65) thought of work as the original "currency" for the acquisition of goods:

> IN that early and rude state of society which precedes both the accumulation of stock and the appropriation of land, the proportion between the quantities of labour necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them for one another. If among a nation of hunters, for example, it usually costs twice the labour to kill a beaver which it does to kill a deer, one beaver should naturally exchange for or be worth two deer. It is natural that what is usually the produce of two days or two hours labour, should be worth double of what is usually the produce of one day's or one hour's labour.
> If the one species of labour should be more severe than the other, some allowance will naturally be made for this superior hardship; and the produce of one hour's labour in the one way may frequently exchange for that of two hours labour in the other.
> Or if the one species of labour requires an uncommon degree of dexterity and ingenuity, the esteem which men have for such talents, will naturally give a value to their produce, superior to what would be due to the time employed about it.

Those who believe Smith had a labor theory of value do not seem to have noticed that he was talking about a "primitive and rough state of society," where there is no capital accumulation or private ownership of land. Under these conditions, it is logical that the exchange value of the various goods is given by the labor time required to produce them; working time is the "price" you must pay to get the goods you want.

But, then Smith (1776, pp. 55–56) points out the following:

> As soon as stock has accumulated in the hands of particular persons, some of them will naturally employ it in setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work, or by what their labour adds to the value of the materials. In exchanging the complete manufacture either for money, for labour, or for other goods, over and above what may be sufficient to pay the price of the materials, and the wages of the workmen, something must be given for the profits of the undertaker of the work who hazards his stock in this adventure. The value which the workmen add to the materials, therefore, resolves itself in this case into two parts, of which the one pays their wages, the other the profits of their employer upon the whole stock of materials and wages which he advanced.

Two conclusions can be drawn from this quote: 1) work "is not" the only determinant of exchange value. Profits are part of it; 2) the exchange value can go up with the work and cost that is added to it.

In the following two quotes, Smith (1776, p. 66) clarifies that earnings are a different thing from work:

> The profits of stock, it may perhaps be thought, are only a different name for the wages of a

> particular sort of labour, the labour of inspection and direction. They are, however, altogether different, are regulated by quite different principles, and bear no proportion to the quantity, the hardship, or the ingenuity of this supposed labour of inspection and direction. They are regulated altogether by the value of the stock employed, and are greater or smaller in proportion to the extent of this stock.

And Smith (1776, p. 67) concludes:

> In the price of commodities, therefore, the profits of stock constitute a component part altogether different from the wages of labour, and regulated by quite different principle.
> In this state of things, the whole produce of labour does not always belong to the labourer. He must in most cases share it with the owner of the stock which employs him. Neither is the quantity of labour commonly employed in acquiring or producing any commodity, the only circumstance which can regulate the quantity which it ought commonly to purchase, command, or exchange for. An additional quantity, it is evident, must be due for the profits of the stock which advanced the wages and furnished the materials of that labour.

So *far,* we have two "determinants" of the exchange value or price of things. But finally, Smith (1776, p. 67) added a third, namely land rent:

> As soon as the land of any country has all become private property, the landlords, like all other men, love to reap where they never sowed, and demand a rent even for its natural produce. The wood of the forest, the grass of the field, and all the natural fruits of the earth, which, when land was in common, cost the labourer only the trouble of gathering them, come, even to him, to have an additional price fixed upon them. He must then pay for the licence to gather them; and must give up to the landlord a portion of what his labour either collects or produces. This portion, or, what comes to the same thing, the price of this portion, constitutes the rent of land, and in the price of the greater part of commodities makes a third component part.

With much disappointment, Smith incorporates land rent as the third determinant of the natural price. These three "determinants" can, according to Smith (1776, pp. 67–68), be "measured" in working hours to compare in real terms the relative prices or exchange values of goods:

> The real value of all the different component parts of price, it must be observed, is measured by the quantity of labour which they can, each of them, purchase or command. Labour measures the value not only of that part of price which resolves itself into labour, but of that which resolves itself into rent, and of that which resolves itself into profit.
> In every society the price of every commodity finally resolves itself into some one or other, or all of those three parts; and in every improved society, all the three enter more or less, as component parts, into the price of the far greater part of commodities.

As you can see, Smith clearly distinguished between the "measure" and the "determinants" of the exchange value of goods. Only a hasty reading can attribute to him a labor-theory of value, let alone a labor-based use theory of value. Later Smith (1776, p. 69)repeats:

> But the whole price of any commodity must still finally resolve itself into some one or other, or all of those three parts; as whatever part of it remains after paying the rent of the land, and the price of the whole labour employed in raising, manufacturing, and bringing it to market, must necessarily be profit to somebody.

Finally, in Chapter VII, "Of the Natural and Market Price of Commodities," Smith (1776, pp. 72–73) explains how the "market price" of goods is determined and the relationship that exists with the "natural price."

> When the price of any commodity is neither more nor less than what is sufficient to pay the

> rent of the land, the wages of the labour, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price.
> The commodity is then sold precisely for what it is worth, or for what it really costs the person who brings it to market; for though in common language what is called the prime cost of any commodity does not comprehend the profit of the person who is to sell it again, yet if he sells it at a price which does not allow him the ordinary rate of profit in his neighborhood, he is evidently a loser by the trade; since by employing his stock in some other way he might have made that profit.[21]

After he has defined the natural price, Smith (1776, p. 73) goes on to explain the market price:

> The actual price at which any commodity is commonly sold is called its market price. It may either be above, or below, or exactly the same with its natural price.
> The market price of every particular commodity is regulated by the proportion between the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity, or the whole value of the rent, labour, and profit, which must be paid in order to bring it thither. Such people may be called the effectual demanders, and their demand the effectual demand; since it may be sufficient to effectuate the bringing of the commodity to market. It is different from the absolute demand. A very poor man may be said in some sense to have a demand for a coach and six; he might like to have it; but his demand is not an effectual demand, as the commodity can never be brought to market in order to satisfy it.

Once the market price is defined, Smith (1776, pp. 73–74) explains the causes that sometimes place it above and sometimes below the natural price:

> When the quantity of any commodity which is brought to market falls short of the effectual demand, all those who are willing to pay the whole value of the rent, wages, and profit, which must be paid in order to bring it thither, cannot be supplied with the quantity which they want. Rather than want it altogether, some of them will be willing to give more. A competition will immediately begin among them, and the market price will rise more or less above the natural price, according as either the greatness of the deficiency, or the wealth and want on luxury of the competitors, happen to animate more or less the eagerness of the competition. Among competitors of equal wealth and luxury the same deficiency will generally occasion a more or less eager competition, according as the acquisition of the commodity happens to be of more or less importance to them. Hence the exorbitant price of the necessaries of life during the blockade of a town or in a famine.
> When the quantity brought to market exceeds the effectual demand, it cannot be all sold to those who are willing to pay the whole value of the rent, wages and profit, which must be paid in order to bring it thither. Some part must be sold to those who are willing to pay less, and the low price which they give for it must reduce the price of the whole. The market price will sink more or less below the natural price, according as the greatness of the excess increases more or less the competition of the sellers, or according as it happens to be more or less important to them to get immediately rid of the commodity. The same excess in the importation of perishable, will occasion a much greater competition than in that of durable commodities; in the importation of oranges, for example, than in that of old iron.
> When the quantity brought to market is just sufficient to supply the effectual demand and no more, the market price naturally comes to be either exactly, or as nearly as can be judged of, the same with the natural price. The whole quantity upon hand can be disposed of for this price, and cannot be disposed of for more. The competition of the different dealers obliges them all to accept of this price, but does not oblige them to accept of less.

[21] Smith thought that wages and rents also had a natural price, which will be defined later.

Smith explains the formation and fluctuation of market prices only by changes in supply and demand. The production costs or the labor required to produce the good have no interference with the market price. Neither Aristotle nor the scholastics had distinguished the difference between the natural or long-term price and the market price or short-term price. Only Cantillon had noted this difference. Cantillon is one of the most cited authors by Smith. Therefore, he may have taken this idea from Cantillon, whose book was published in 1755. Seven or eight years later, in his *Lectures on Jurisprudence*, Smith (1978, p. 356) noted:

> There are in every species of goods two separate prices to be considered, the natural and the market price.

After explaining that the market price can be separated from the natural price by changes in supply and demand, Smith (1776, pp. 74–75) proceeds to explain why both tend to coincide in time:

> The quantity of every commodity brought to market naturally suits itself to the effectual demand. It is the interest of all those who employ their land, labour, or stock, in bringing any commodity to market, that the quantity never should exceed the effectual demand; and it is the interest of all other people that it never should fall short of that demand.
> If at any time it exceeds the effectual demand, some of the component parts of its price must be paid below their natural rate. If it is rent, the interest of the landlords will immediately prompt them to withdraw a part of their land; and if it is wages or profit, the interest of the labourers in the one case, and of their employers in the other, will prompt them to withdraw a part of their labour or stock from this employment. The quantity brought to market will soon be no more than sufficient to supply the effectual demand. All the different parts of its price will rise to their natural rate, and the whole price to its natural price.
> If, on the contrary, the quantity brought to market should at any time fall short of the effectual demand, some of the component parts of its price must rise above their natural rate. If it is rent, the interest of all other landlords will naturally prompt them to prepare more land for the raising of this commodity; if it is wages or profit, the interest of all other labourers and dealers will soon prompt them to employ more labour and stock in preparing and bringing it to market. The quantity brought thither will soon be sufficient to supply the effectual demand. All the different parts of its price will soon sink to their natural rate, and the whole price to its natural price.
> The natural price, therefore, is, as it were, the central price, to which the prices of all commodities are continually gravitating.

We could conclude that Smith does not have a theory of value but a theory of prices. And that his theory of prices is not a theory of labor-value but a theory of the cost of production. The market price, determined by supply and demand, tends to gravitate towards the natural price, determined by production costs. It is true what Smith said, that prices tend to match average costs in the long run, his mistake was to believe that prices were therefore "determined" by costs.

Despite this error, the analysis of why both prices tend to equalize allowed Smith to explain why the market coordinates production through an "invisible hand," achieving an allocation of the challenges that no government planner can get for better intentions.

To say that costs determine prices led Smith and all classical economists into the next vicious circle, from which they could not get out: The market price tends to equate with the natural one, which is determined by the production costs. But the production costs are also prices, and as long as it is not explained how these are determined, there will not be a definitive answer to how prices are determined. The vicious circle is that Smith explained the natural price of production costs according to the natural prices of final goods[22] when he had previously explained these in terms of costs. For example, in the case of labor, he argues that there will be a

[22] Smith (1776, p. 72) sustains that ordinary and average levels of wages, profits, and rents, "may be called the natural rates of wages, profits, and rent, at the time and place in which they commonly prevail."

natural wage and a market wage. The first is given by the cost of attending to the primary needs of the life of the worker and his family, and the second by the supply and demand of the market (Smith, 1776, pp. 85–86):

> A man must always live by his work, and his wages must at least be sufficient to maintain him. They must even upon most occasions be somewhat more; otherwise it would be impossible for him to bring up a family, and the race of such workmen could not last beyond the first generation […]. Thus far it at least seems certain, that, in order to bring up a family, the labour of the husband and wife together must, even in the lowest species of common labour, be able to earn something more than what is precisely necessary for their own maintenance; but in what proportion, whether in that abovementioned, or in any other, I shall not take upon me to determine.

Market wages, regulated by supply and demand, may sometimes be above and sometimes below this subsistence level, but they will continually tend to equalize. The demand for labor in the market is determined by the amount of capital. When it increases, the labor demand grows, and the market wage rises above the subsistence level. When the amount of capital decreases, the demand for labor falls, and with it, the market wage (Smith, 1776, p. 86):

> The demand for those who live by wages, it is evident, cannot increase but in proportion to the increase of the funds which are destined for the payment of wages.

And Smith (1776, p. 98) continues:

> If this demand is continually increasing, the reward of labour must necessarily encourage in such a manner the marriage and multiplication of labourers, as may enable them to supply that continually increasing' demand by a continually increasing population. If the reward should at any time be less than what was requisite for this purpose, the deficiency of hands would soon raise it; and if it should at any time be more, their excessive multiplication would soon lower it to this necessary rate. The market would be so much under-stocked with labour in the one case, and so much over-stocked in the other, as would soon force back its price to that proper rate which the circumstances of the society required. It is in this manner that the demand for men, like that for any other commodity, necessarily regulates the production of men; quickens it when it goes on too slowly, and stops it when it advances too fast.

Thus, Smith ends up explaining natural wages as a function of natural prices, and natural prices are partly explained by natural wages. His theory fell into a vicious circle.

Smith (1776, p. 162) makes the same mistake when explaining the determination of land rent, as can be seen in the following quote:

> Rent, it is to be observed, therefore, enters into the composition of the price of commodities in a different way from wages and profit. High or low wages and profit, are the causes of high or low price; high or low rent is the effect of it. It is because high or low wages and profit must be paid, in order to bring a particular commodity to market, that its price is high or low. But it is because its price is high or low; a great deal more, or very little more, or no more, than what is sufficient to pay those wages and profit, that it affords a high rent, or a low rent, or no rent at all.

As we saw in the chapter where Smith speaks of the "determinants" of the natural price, he includes the rent of the land as one of them. But in this last quote, he argues that rent is the effect of price.

Governor Thomas Pownall sent a letter, on September 25, 1776, to Smith commenting, among other things, on his theory of value.[23] Pownall's position is very similar to Turgot's in that he rejects the existence of a natural or long-term price and gives a totally subjective approach to price determination. Still, Pownall's critique of

[23] I thank Carlos Rodríguez Braun for informing me of the contents of this letter.

Smith seems to have several misinterpretations we mentioned earlier. Smith does not have a labor theory of value but of the cost of production. Pownall seems to confuse the two, and much of his criticism does not get to the heart of the problem. Says Pownall (Campbell Mossner & Simpson Ross, 1977, p. 344):

> That labour which varies in its productive power, according as it is differently applied, and according to the object it is employed upon, must certainly vary in its use, and equal quantities of it must be in such different circumstances of very unequal value to the labourer. *Labour in vain, lost labour--Labour which makes itself work*, (phrases which, to a proverb, express some species of labour,) *cannot be* said to be *of any use* to the labourer. He who would shave a block with razor, will labour in vain. He who sows on a rock, or on a barren sand, or in a drowned morass, will lose his labour. He who sheers his hogs, will have great cry and little wool, and only make himself work: but labour will still vary more in its *exchangeable value*; equal quantities of labour will receive very variable degrees of estimation and value.

Pownall makes the mistake of attributing to Smith a labor-based theory of value that he did not actually have. Only in the case of a primitive economy does Smith argue that the "exchange value" of goods is equal to the labor time required for their production, but in an advanced society, costs determine the exchange value of commodities for Smith.

Now, while Pownall's (p. 344) criticism is wrong, his own thinking about the value and price of things is better than Smith's; see the following quote:

> This value cannot be fixed by and in the nature of the labour; it will depend upon the nature of the feelings and the activity of the persons estimating it.

And below, he adds (p. 346):

> As I think that there is no real measure of value, so I think there is no fixed natural rate of value, or real price distinct from the market price.

With *The Wealth of Nations,* Smith initiated a stream of thought that followed his basic guidelines of price theory. Classical economists did not have a theory of value. When they referred to value, they spoke of exchange value or price. Before continuing with the classical school's leading economists it is worth noting that, just as Pownall criticized Smith's thought from an eminently subjective position, other thinkers opposed the classical point of view. One of the most important was the Earl of Lauderdale.

10.2. James Maitland, 8th Earl of Louderdale (1759 – 1839)

This nobleman published in 1804 a book entitled *An Inquiry Into the Nature and Origin of Public Wealth*, in which he criticizes Adam Smith's theory of exchange value.[24] This is a brilliant critique, as it anticipates marginal utility theory very accurately. Let's look at the following paragraph, which is very significant (Lauderdale, 1819, pp. 10–11):

> The term *Value* whatever might have been its original sense, as it is used in common language, does not express a quality inherent in any commodity. There is nothing which possesses a real, intrinsic, or invariable value. The possession of no quality, however important to the welfare of man, can confer value; for water, the most necessary of all things, seldom possesses it.
> Experience shews us, that every thing is uniformly considered as valuable, which, to the possession of qualities that make it the object of the desire of man, adds the circumstance of existing in scarcity. To confer value, therefore, two things appear requisite: 1. That the commodity, as being useful or delightful to man, should be an object of his desire; 2. That it

[24] There is a second edition of the book in 1819, but according to Morton Paglin, who makes the introduction to Lauderdale's book, there are no significant changes from the first.

> should exist in a degree of scarcity.

Lauderdale eliminated all objective or intrinsic concepts of value and united the concepts of utility and scarcity as determinants of the use value or utility of things. While he did not formally raise the theory of marginal utility, he came pretty close to the idea by uniting utility and scarcity. However, in the following quote, we can see that he uses the word value in the sense of price, while in the previous one, he used it as a synonym for use value. In the following paragraph Lauderdale (Lauderdale, 1819, p. 12) makes an analysis of the causes of price changes based on supply and demand:

> […] and every commodity would, of course, be subject to a variation in its value from four different circumstances.
> 1. It would be subject to an increase of its value, from a diminution of its quantity.
> 2. To a diminution of its value, from an augmentation of its quantity.
> 3. It might suffer an augmentation in its value, from the circumstance of an increased demand.
> 4. Its value might be diminished, by a failure of demand.

Lauderdale (1819, p. 13) immediately holds that no commodity possesses intrinsic or fixed value to be a measure of the value of the others and, therefore, price changes are due to a variation in its own supply and demand or to a variation in the supply and demand of the currency.

> As the value, therefore, of all commodities depends upon the possession of a quality that makes them the object of man's desire, and the circumstance of their existing in a certain degree of scarcity; it follows that the variation of all value must depend upon the alteration of the proportion betwixt the demand for, and the quantity of, the commodity, occasioned by the occurrence of one of the four circumstances above stated; and that a variation in the expression of value, may be occasioned by the occurrence of any of the eight circumstances we have alluded to […].

And then he adds (p. 14):

> Water, it has been observed, is one of the things most useful to man, yet it seldom possesses any value; and the reason of this is evident: it rarely occurs, that to its quality of utility is added the circumstance of existing in scarcity; but it, in the course of a siege, or a sea-voyage, it becomes scarce, it instantly acquires value; and its value is subject to the same rule of variation as that of other commodities.

As you can see, the earl clearly understood that utility alone does not give value to things. These acquire value when in addition to being useful they are scarce. In the same way, Lauderdale (1819, pp. 14–15) also did not believe that scarcity alone gave value to things:

> Gold is nowhere to be found in abundance; but scarcity alone cannot give it value, any more than utility can confer value on water. We are accordingly told, that the poor inhabitants of Cuba and St Domingo, when first discovered by the Spaniards, not knowing the use of gold, considered it a little as bits of pebble, just worth the picking up, but not worth the refusing to anybody that asked it; and that they in reality gave it to their new guests at their first request. But the knowledge of its utility by the Spaniards, and its possessing therefore qualities, that to them made it an object of desire, added to the circumstance of its scarcity, soon gave it value; and the degree of its value came speedily to be fixed, even in the minds of the natives, on the same principle as that of food , and all other commodities.

Lauderdale (1819, p. 19) was not a victim of the objectivist ingredient (*virtuositas*) that the scholastics had, according to which the intrinsic qualities of the good helped in the determination of its value:

> […] that the existence of value is perfectly independent of any inherent characteristic in the commodity itself; that there is no such think as intrinsic value; and that alterations in the degrees of value are not dependent upon any change of quality, but always on some change of proportion betwixt the quantity and the demand for a commodity […]

The Earl of Lauderdale's theory is one of the best approximations to that of marginal utility. Finally, we can quote a very forceful passage where Lauderdale (Lauderdale, 1819, pp. 24–25) denies that there is anything that can serve as an "objective measure" of value or price:

> To those who understand any thing of the nature of value, or on what is variations depend, the existence of a perfect measure of value must at one appear impossible: for as nothing can be a real measure of magnitude and quantity, which is subject to variations in its own dimensions, so nothing can be a real measure of the value of other commodities, which is constantly varying in its own value. But as there is nothing which is not subject to variations, both in its quantity and in the demand for it, there can be nothing which is not subject to alteration in value.
> […] labour is the thing most subject to variation in its value, and is of course, of all others that could have been selected, the worst calculated to perform that duty.

10.3. David Ricardo (1772 – 1823)

Ricardo is perhaps the classical economist who has caused the most confusion in the theory of value. Many historians of economic thought attribute to him a labor theory of value. For example, Gide and Rist (1915, p. 140) argue about the importance of the: "[…] Ricardian theory of value, especially when we recall the importance of his theory of labour-value in the history of economic doctrine and how it paved the way for the Marxian theory of surplus value, which is the foundation-stone of contemporary socialism." For his part, James (James, 1974, p. 94 TN: My translation) states: "Ricardo, [...], did not think that the exchange relationship between two goods could never be different from the relationship between the respective quantities of labour embodied in the goods." Henry W. Spiegel (1971, p. 321), after admitting that Ricardo's theory of exchange value can be interpreted as a theory of the cost of production, ends by stating: "Ricardo's great impact on the history of economics was made as an exponent of the labor theory of value, not of a cost-of-production theory."

However, it can be shown, as it was actually done, that Ricardo did not have a labor-based theory of exchange value, and he was further away from having a use-value theory.[25] In any case, many of its paragraphs are contradictory; in some it explicitly states that labor it only determines the exchange value of goods and in others it explicitly states that labor is not the only factor, although it is the most important. But what is relevant is the whole work and not the loose paragraphs, which are contradictory.

His first reflections on exchange value appeared in early 1815 in an article entitled "Essay on the Influence of a High Price of Corn on the Profits of Stocks." In the second place, we have his book *Principles of Political Economy and Taxation*, of which there were three editions, in 1817, 1819, and 1821. The first chapter is dedicated to "value" and was undergoing modifications in each edition, especially in the last one. Thirdly we have the letters from Malthus, McCullogh, and Say, among others. Fourthly there are writings commenting on R. Torrens and an article from 1823 entitled "Absolute Value and Exchange Value," which does not add much about what was said in the book. And finally, there are drafts entitled "Absolute value and exchangeable value." We will try to show that Ricardo did not have a labor-based theory of exchange value; his theory was, like Adam Smith's, about the cost of production.

In the first chapter of his book, he discusses the issue of "value." The chapter is divided into seven sections.[26] The first section is called "The value of a commodity, or the quantity of any other commodity which it will exchange, depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour." The long title clearly states that relative prices

[25] See Stigler (1965), O'Brien (1989, pp. 124–132), and Cassels (1935). Cassels seems to be quite right when he states that the "difficulties which have been encountered all along in finding a satisfactory interpretation of Ricardo's Principles have been due not only to the intricacy of his reasoning and the obscurity of his writing but also to the preconceived ideas with which his readers have invariably approached his work" (p. 519).

[26] This division in sections is new to the third edition.

are determined by the relative quantities of labor required for the production of each good, leading one to think, in the first instance, that labor is the *sole* determinant of the exchange value of commodities. It is clear that it refers to the exchange value and not the use value.

Ricardo (Ricardo, 1817) begins the section by pointing out, citing Adam Smith, that the word value has two meanings: "[the] one may be called *value in use*; the other *value in exchange*." Also following Smith, Ricardo (Ricardo, 1817) immediately presents the paradox of value:

> Water and air are abundantly useful; they are indeed indispensable to existence, yet, under ordinary circumstances, nothing can be obtained in exchange for them. Gold, on the contrary, though of little use compared with air or water, will exchange for a great quantity of other goods.

From this paradox, Ricardo (1817, p. 11 italics added) concludes that utility is not the *measure* of exchange value but a necessary condition for it to exist:

> Utility then is not the *measure* of exchangeable value, although it is absolutely essential to it. If a commodity were in no way useful,—in other words, if it could in no way contribute to our gratification,—it would be destitute of exchangeable value, however scarce it might be, or whatever quantity of labour might be necessary to procure it.

Again, the utility or use value is the basis or foundation of the price of things. For Ricardo (1817, p. 12), if an item has use value, its exchange value can be explained in two ways:

> Possessing utility, commodities derive their exchangeable value from two sources: from their scarcity, and from the quantity of labour required to obtain them.

Ricardo (1951a, p. 248) is much clearer in a letter sent to Jean Baptiste Say:

> Utility is certainly the foundation of value, but the degree of utility can never be the measure by which to estimate value. A commodity difficult of production will always be more valuable than one which is easily produced although all men should agree that the latter is more useful than the former. A commodity must be useful to have value but the difficulty of its production is the true measure of its value. For this reason Iron though more useful is of less value than gold.
> Riches are valuable only as they can procure us enjoyments.

Some goods, which "form a very small part of the mass of commodities daily exchange in the market", derive their value exclusively from their scarcity. These goods are those that are not subject to reproduction, e.g., "[s]ome rare statues and pictures, scarce books and coins, wines of a peculiar quality [...]" (Ricardo, 1817, p. 12) No amount of labor can modify the exchange value of these goods.

However, most of the goods available are those that "can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint" (Ricardo, 1817, p. 12).

In the above quotations, Ricardo gives rise to confusion, since he maintains that once goods are useful, they derive their exchange value from scarcity, or the amount of labor required to obtain them and makes no mention of any other factor.

Since Ricardo's theory of exchange value is exposed in a very intricate way, we can, as an introduction, summarize it as follows: 1) wages and profits have an inverse relationship, with higher wages lower profits and vice versa; 2) the purchasing power of money is constant; 3) when goods are produced *only with labor* (working capital) their relative prices are determined by the number of hours of labor required for their production; an increase in wages, since the purchasing power of money is constant, causes a fall in profits but does not alter relative prices. If relative prices were to change, rates of return would not be uniform, and competition would restore equal returns but with less profit. In the following table, we have an example:

Table 1

	Good A	Good B	Good A	Good B
Hours of work	50	60	50	60
Wage per hour	$10	$10	$12	$12
Total, wages paid	$500	$600	$600	$720
Profits	$150	$180	$50	$60
Product value	$650	$780	$650	$780
Profit rate	30%	30%	8.3%	8.3%
Relative prices $\left(A/_{B}\right)$	0.83		0.83	

Given Ricardo's assumptions, we can see that an increase in wages, from 10 to 12, causes a fall in profits and profitability in the production of both goods but does not change relative prices. Profit rates also fall, from 30% to 8.3%, but remain the same for both goods. Therefore, there is no incentive to shift productive factors from one activity to the other.

A second case is when goods are produced with labor (working capital) and "machines and tools" (fixed capital). In this case, the relative prices are determined by the work required directly in the production of the goods and the labor necessary indirectly to produce the machinery and tools. But now the following cases arise: a) whether the proportion of durability and speed with which relative prices are determined, as in the previous point, by the amount of labor required in the production of fixed capital and a variation in wages will have no impact on relative prices. Example:

Table 2

	Good A	Good B	Good A	Good B
Hours of work	50	60	50	60
Wage per hour	$10	$10	$12	$12
Total, wages paid	$500	$600	$600	$720
Profits	$150	$180	$50	$60
Product value	$1,150	$1,380	$1,150	$1,380
Profit rate	15%	15%	4.5%	4.5%
Proportion of fixed capital	50%	50%	45.5%	45.5%
Relative prices $\left(A/_{B}\right)$	0.83		0.83	

Suppose the ratio of working and fixed capital is different for different goods. In that case, relative prices will be determined by the labor time required directly and indirectly. Still, now a change in prices and wages will also cause a change in comparable prices. This is because, by using different proportions of working and fixed capital, an increase in wages will produce changes in the rates of profit, and the market, by tending to equalize rates of return through competition, will modify relative prices. Example:

Table 3

	Good A	Good B	Good A	Good B
Hours of work	50	60	50	60
Wage per hour	$10	$10	$12	$12
Total, wages paid	$500	$600	$600	$720
Value of fixed capital	$500	$400	$500	$400
Profits	$150	$150	$50	$30
Product value	$1,150	$1,150	$1,150	$1,150
Profit rate	15%	15%	4.5%	2.7%
Proportion of fixed capital	50%	40%	45.5%	45.5%
Relative prices $\left(A/_{B}\right)$	1		1	

If the exact original relative prices were maintained, a wage increase would cause a fall in the rate of profit of both goods. Still, the rate of profit of A (4.5%) would improve compared to that of B (2.7%); competition in the market would increase the production of A relative to B, resulting in the price of B decreasing. Thus, an increase in wages causes changes in relative prices if the proportions of fixed capital used are not the same in the various goods *even though there have been no changes in the required labor times*. The same effect will occur if the durability and/or speed with which the capital is recovered are different for each of the goods.

While Ricardo is very confusing in his writing, a careful reading shows that he was practically following Smith with very few variations. Ricardo (1817, p. 12) also argues, unlike Smith, that even at a primitive stage of society it is unthinkable that capital should not be used; therefore, capital always intervenes, to a greater or lesser extent.

> In the early stages of society, the exchangeable value of these commodities, or the rule which determines how much of one shall be given in exchange for another, depends *almost* exclusively on the comparative quantity of labour expended on each.

Ricardo says "almost exclusively" and not the "only circumstance," as Smith had said, so work is *not* the only determining value factor. However, in the following quote, he speaks as if work is the only determining factor.[27] These are the contradictions that make a hasty reader dizzy. Ricardo is an author who should be read very calmly and patiently (Ricardo, 1817, p. 13):

> If the quantity of labour realized in commodities, regulate their exchangeable value, every increase of the quantity of labour must augment the value of that commodity on which it is exercised, as every diminution must lower it.

But again, Ricardo (1817, pp. 22–23) goes back, pointing out that capital always intervenes in the production of goods, even in the primitive stages:

> Even in that early state to which Adam Smith refers, some capital, though possibly made and accumulated by the hunter himself, would be necessary to enable him to kill his game. Without some weapon, neither the beaver nor the deer could be destroyed, and therefore the value of these animals would be regulated, not solely by the time and labour necessary to their destruction, but also by the time and labour necessary for providing the hunter's capital, the weapon, by the aid of which their destruction was effected.

When Ricardo argues that labor is the determinant of the exchange value of goods, he is doing so under the assumption that all goods are produced with an equal amount of fixed capital and amortized simultaneously. Forgetting this assumption has led to misinterpretations of Ricardo.

The fourth section of the first chapter has the following title: "The principle that the quantity of labour bestowed on the production of commodities regulates their value, considerably modified by the employment of machinery and other fixed and durable capital." Ricardo (1817, p. 30) begins as follows:

> […] but in every state of society, the tools, implements, buildings, and machinery employed in different trades may be of various degrees of durability, and may require different portions of labour to produce them. The proportions, too, in which the capital that is to support labour, and the capital that is invested in tools, machinery and buildings, may be variously combined. This difference in the degree of durability of fixed capital, and this variety in the proportions in which the two sorts of capital may be combined, introduce another cause, besides the greater or less quantity of labour necessary to produce commodities, for the variations in their relative value […]

In a letter to James Mill, Ricardo (1951b, p. 377) tries to point out his differences with Adam Smith and in doing so makes it clear again that he does not have a theory of exchange value based exclusively on work:

> […] Adam Smith thought, that as in the early stages of society, all the produce of labour

[27] In fact, at the beginning of section three, Ricardo (1817, pp. 22–23) says that "[e]ven in the early stage to which Adam Smith refers, some capital, though possibly made and accumulated by the hunter himself, would be necessary to enable him to kill his game."

> belonged to the labourer, and as after stock was accumulated, a part went to profits, that accumulation, necessarily, without any regard to the different degrees of durability of capital, or any other circumstance whatever, raised the prices or exchangeable value of commodities, and consequently that their value was no longer regulated by the quantity of labour necessary to their production. In opposition to him, I maintain that it is not because of this division into profits and wages,—it is not because capital accumulates, that exchangeable value varies, but it is in all stages of society, owing only to 2 causes: one the more or less quantity of labour required, the other the greater or less durability of capital:—that the former is never superseded by the latter, but is only modified by it.

And we can cite another letter sent to J. R. McCulloch, equally forceful when making a self-criticism of the 1819 edition of his own book. Let us remember that in the edition of 1821, he introduced important modifications to the chapter of value (Ricardo, 1951c, p. 194):

> I sometimes think that if I were to write the chapter on value again which is in my book, I should acknowledge that the relative value of commodities was regulated by two causes instead of by one, namely, by the relative quantity of labour necessary to produce the commodities in question, and by the rate of profit for the time that the capital remained dormant, and until the commodities were brought to market.

We saw this conclusion exemplified in the tables above.[28] Since in practice, the production of different goods is carried out with different proportions of capital, and in addition to unequal durability and recovery, it can be said that those who maintain that Ricardo had a theory of exchange value based solely on labor time read him very hurriedly.

Ricardo, like Smith, did not have a theory of value. He had a theory of prices. The "natural price" was determined by the cost of production and not the amount of labor incorporated (although Ricardo is very responsible for the confusion by his way of writing), and the market price was set by supply and demand. When the market price coincides with the natural price, the profit rates are equal in all productive activities. On the other hand, when the market price deviates from the natural price, there are changes in the rates of profit that induce the reallocation of the productive factors (Ricardo, 1817, pp. 88–89):

> Whilst every man is free to employ his capital where he pleases, he will naturally seek for it that employment which is most advantageous; he will naturally be dissatisfied with a profit of 10 per cent., if by removing his capital he can obtain a profit of 15 per cent. This restless desire on the part of all the employers of stock, to quit a less profitable for a more advantageous business, has a strong tendency to equalize the rate of profits of all, or to fix them in such proportions, as may in the estimation of the parties, compensate for any advantage which one may have, or may appear to have over the other.

And Ricardo (1817, p. 89) then adds:

> When the demand for silks increases, and that for cloth diminishes, the clothier does not remove with his capital to the silk trade, but he dismisses some of his workmen, he discontinues his demand for the loan from bankers and monied men; while the case of the silk manufacturer is the reverse: he wishes to employ more workmen, and thus his motive for borrowing is increased: he borrows more, and thus capital is transferred from one employment to another, without the necessity of a manufacturer discontinuing his usual occupation.

In chapter VI, "On Profits," Ricardo (1817, p. 119) returns to the subject as follows:

> I have already remarked, that the market price of a commodity may exceed its natural or

[28] The explanation can be found in Ricardo (1817, pp. 38–43).

> necessary price, as it may be produced in less abundance than the new demand for it requires. This, however, is but a temporary effect. The high profits on capital employed in producing that commodity, will naturally attract capital to that trade; and as soon as the requisite funds are supplied, and the quantity of the commodity is duly increased, its price will fall, and the profits of the trade will conform to the general level.

Ricardo is less accurate than Adam Smith in explaining the tendency of market prices to match natural prices. Ricardo makes no reference to supply and demand. Still, in any case, the conclusions are the same: capitalists expand production when the market price is above the natural price and contract it when it is below. In this way, the correct proportion of goods and services demanded by the market is produced. By wanting to maximize profits, "capitalists" are guided to produce what people demand and stop producing what people do not demand.

Ricardo, like Smith, also falls into the vicious circle of explaining natural price based on costs and then costs as a function of prices. In Chapter V, "On Wages," Ricardo (Ricardo, 1817, p. 94) makes the following analysis:

> Labour, like all other things which are purchased and sold, and which may be increased or diminished in quantity, has its natural and its market price. The natural price of labour is that price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without either increase or diminution.
> [...] The natural price of labour, therefore, depends on the price of the food, necessaries, and conveniences required for the support of the labourer and his family. With a rise in the price of food and necessaries, the natural price of labour will rise; with the fall in their price, the natural price of labour will fall.

Circular reasoning is noticeably clear. According to Ricardo, as society progresses, the natural price of labor is subject to two opposing forces. On the one hand, the natural price of food will tend to increase because the greatest production has to be done on less fertile land, raising the natural price of grains and, therefore, the wage. On the other hand, the natural price of the rest of the goods will tend to fall due to improvements in the machinery used in their production and the more significant division and distribution of labor. The market wage may deviate from the natural wage due to variations in supply and demand. However, there will always be a tendency to match the natural wage (Ricardo, 1817, p. 94):

> It is when the market price of labour exceeds its natural price, that the condition of the labourer is flourishing and happy, that he has it in his power to command a greater proportion of the necessaries and enjoyments of life, and therefore to rear a healthy and numerous family. When, however, by the encouragement which high wages give to the increase of population, the number of labourers is increased, wages again fall to their natural price, and indeed from a re-action sometimes fall below it.

One of the main differences between Smith and Ricardo is that for the former, the natural price was determined by three elements: labor, capital, and land. Ricardo did not include land as a cost element; therefore, the natural price was determined for him by two elements, labor, and capital. Ricardo (1817, p. 74) says:

> The reason [...] why raw produce rises in comparative value, is because more labour is employed in the production of the last portion obtained, and not because a rent is paid to the landlord. The value of corn is regulated by the quantity of labour bestowed on its production on that quality of land, or with that portion of capital, which pays no rent. Corn is not high because a rent is paid, but a rent is paid because corn is high [...]

Less fertile land requires more labor per unit of product; therefore, producers using more fertile land would have a higher profit at the same selling price. However, competition in the market to use the most fertile land gives rise to rent. The greater profits provided by the most fertile lands compared to the less fertile ones are absorbed by the landowners of the former. In this way, the profits of all producers will tend to equalize. In the following table, we have an example:

Table 4

	Land quality I	Land quality II	Land quality III
Quantity produced	150	120	100
Price of corn	$5	$5	$5
Income	$750	$600	$500
Wages	$100	$100	$100
Profits	$400	$400	$400
Rent	$250	$100	$0

The higher income from the most fertile lands is absorbed by the rent of the landowners due to competition among producers who tend to match the rates of profit in all markets. Landowners add nothing to production; they only keep a part of the production at the cost of a lower profit (Ricardo, 1817, pp. 120–121):

> […] the very low rate of profits will have arrested all accumulation, and almost the whole produce of the country, after paying the labourers, will be the property of the owners of land and the receivers of tithes and taxes.

Profits tend to decline with increasing population and capital accumulation. The natural tendency of profits is to fall; with the progress of society and wealth, the additional amount of food required is obtained by employing more and more labor. This trend is, fortunately, slowed down at repeated intervals by improvements in machinery related to the production of basic necessities, as well as by discoveries in the science of agriculture that allow us to dispense with a part of the work required. These two factors lower the natural prices of the worker's basic necessities (Ricardo, 1817, p. 121).

The tendency of profits to decline discourages, in turn, the accumulation of new capital, and therefore production will sooner or later come to a standstill (Ricardo, 1817, p. 122):

> The farmer and manufacturer can no more live without profit, than the labourer without wages. Their motive for accumulation will diminish with every diminution of profit, and will cease altogether when their profits are so low as not to afford them an adequate compensation for their trouble, and the risk which they must necessarily encounter in employing their capital productively.

If we represented in a graph what would happen, according to Ricardo, with the trend of the distribution of income, we would obtain the following result: 1) the real wage would be a line parallel to the abscissas equal to the subsistence level; 2) land rent would tend to increase, and 3) profits would tend to a minimum at which there will be no incentive to accumulate more capital and expand production.

One of Ricardo's most serious mistakes was to conclude that the different social "classes" have opposite interests: the higher incomes of some mean lower incomes for others and vice versa.

10.4. John Stuart Mill (1806 – 1873)

John Stuart Mill is the last of the classics. With him, classical economics reaches maximum popularity and acceptance, especially within England. His book *Principles of Political Economy*, the first edition of which was published in 1848, had seven editions in 1849, 1852, 1857, 1862, 1865, and 1871, and translations into French, Italian, Spanish, German, etc. This gives us an idea of the great popularity achieved by the book. For many years Mill's *Principles* served as a textbook at many universities. John S. Mill not only made his own contributions to classical economics, in some cases unhappy contributions, but he also systematized and organized the thought of Adam Smith and David Ricardo in a very orderly way. Mill (1848, p. xxviii) states, "The *Wealth of Nations* is in many parts obsolete, and in all, imperfect." While the claim is a bit far-fetched, it had already been almost 100 years between the publication of *Wealth of Nations* and the last edition of the *Principles*.

The main difference between John S. Mill and his classical school predecessors has meant a step backward for economic theory. A characteristic common to all the classics was that, for them, economic laws were not a product of human invention. They were laws placed in the world by a higher being, and men had to discover them as they discovered the laws of physics, chemistry, or astronomy. For all the classics, economics had two parts: 1) the laws of production and 2) the laws of distribution. But the two sides were governed by *natural* laws that were not the result of human ingenuity. Men did not invent but discovered these laws.

John S. Mill continues this tradition of dividing the economy into production and distribution, but with the difference that he believed that these *natural* laws only governed production; the distribution of wealth could be realized by human laws, the product of man's creation. Mill (1848, p. 21) says: “Unlike the laws of Production, those of distribution are partly of human institution: since the manner in which wealth is distributed in any given society, depends on the statutes and usages therein obtaining.”

The classics had made a mistake with this division of economic theory. Production and distribution are not independent things; they are, in fact, two sides of the same coin; production “is” distribution. Instead of correcting this mistake of the classics, Mill advanced further down the wrong path.

Mill (1848, p. 436) closes the era of the theory of value and price of classical economists with a phrase that has become famous within the history of economic thought:

> Happily, there is nothing on the laws of value which remains for the present or any future writer to clear up; the theory of the subject is complete […]

This phrase, written in 1848, was repeated in different editions until 1871 inclusive. And it was in 1871 that the greatest revolution in the theories of value and price occurred with the discovery of the theory of marginal utility. The contradictions of the classics were resolved by a 180-degree turn; as we will see in part two of this work, costs are not what determine prices, but prices determine costs.

Following the classical tradition, Mill (1848, pp. 436–437) distinguishes between use value and exchange value:

> We must begin by settling our phraseology. Adam Smith, in a passage often quoted, has touched upon the most obvious ambiguity of the word value; which, in one of its sense, signifies usefulness, in another, power of purchasing; in his own language, value in use and value in exchange. But, (as Mr. De Quincey has remarked) in illustrating this double meaning Adam Smith has himself fallen into another ambiguity. Things (he says) which have the greatest value in use have often little or no value in exchange; which is true, since that which can be obtained without labour or sacrifice will command no price, however useful or needful it may be. But he proceeds to add, that things which have the greatest value in exchange, as a diamond for example, may have little or no value in use.

John S. Mill did not have access to Smith's *Lectures on Jurisprudence* (these are actually a compilation of his lectures in Glasgow and not a book); had he had access to Smith’s lectures, Mill would have seen that the Scotsman had not fallen into an ambiguity on this point. Perhaps it is a mystery that can never be solved why Smith did not explain the paradox of value in *Wealth of Nations* when he had done it before in his Glasgow classes.

Mill manages, without reaching the concept of marginal utility, to relate better than Smith and Ricardo the value of use with that of exchange. Use value puts a ceiling on exchange value: no one will pay more for a commodity than how much they value it. Even in the following paragraph you can find a preview of what modern economists call “consumer surplus” (Mill, 1848, p. 437):

> The use of a thing, in political economy, means its capacity to satisfy a desire or serve a purpose. Diamonds have this capacity in a high degree, and unless they had it, would not bear any price. Value in use, or as Mr. De Quincey calls it, *teleologic* value, is the extreme limit of value in exchange. The exchange value of a thing may fall short, to any amount, of its value in use; but that it can ever exceed the value in use implies a contradiction; it supposes that persons will give, to possess a thing, more than the utmost value which they themselves put upon it as a means of gratifying their inclinations.

At the beginning of this article, we pointed out that exchange value is actually the price of a commodity and that classical economists, when they talked about "value," were talking about price and not about the utility or pleasure that possession of the commodity brings. This allows us to conclude that the classics did not have a theory of value but a theory of price. John S. Mill establishes a better relationship between use value and exchange value without developing a theory of use value. But Mill (1848, p. 437) also distinguishes between exchange value and price as follows:

> Exchange value requires to be distinguished from Price. The words Value and Price were used as synonymous by the early political economists, and are not always discriminated even by Ricardo. But the most accurate modern writers, to avoid the wasteful expenditure of two good scientific terms on a single idea, have employed Price to express the value of a thing in relation to money; the quantity of money for which it will exchange. By the price of a thing, therefore, we shall henceforth understand its value in money; by the value, or exchange value of a thing, its general power of purchasing; the command which its possession gives over purchasable commodities in general.

Mill's claim to the classics does not seem fair since they had clearly distinguished between the nominal and real price of things and associated the exchange value with the second. In any case, Mill's goal is justified: the theory of exchange value has to explain *relative prices*, i.e., how much of a commodity must be delivered to obtain one unit of another. If the monetary "prices" of all goods rise or fall in the same proportion, relative prices will not change. Mill (1848, pp. 439–440) justifiably wants to distinguish between this price variation, which Smith and Ricardo called "nominal," and price variations "between" the various commodities.

> That the money prices of all things should rise or fall, provided they all rise or fall equally, is in itself, and apart from existing contracts, of no consequence. It affects nobody's wages, profits, or rents. [...] The only thing which in this case is really altered in value is money; and the only persons who either gain or lose are the holders of money, or those who have to receive or to pay fixed sums of it.

After the semantic clarifications, Mill begins to analyze in detail the determination of the exchange value. His theory is practically identical to Ricardo's but much better expressed in clarity and order. An important contribution of Mill concerning his predecessors is that he distinguishes between the concepts of "demand" and "quantity demanded." The classics committed the following ambiguity: they said that prices rose or fell when demand increased or decreased, but they also said that if the price rose, the demand went down or if the price fell, the demand went up. From John S. Mill, we know that a change in price causes changes in the "quantity demanded"[29] and that a change in "demand"[30] causes changes in prices. This was a very important contribution by Mill, but in the rest of the theory of exchange value, he followed Ricardo almost inch by inch. Mill (1848, p. 442) introduces the topic as follows:

> THAT a thing may have any value in exchange, two conditions are necessary. It must be of some use; that is (as already explained), it must conduce to some purpose, satisfy some desire. No one will pay a price, or part with anything which serves some of his purposes, to obtain a thing which serves none of them. But, secondly, the thing must not only have some utility, there must also be some difficulty in its attainment.

Adding below (p. 442):

> The difficulty of attainment which determines value is not always of the same kind of difficulty. It sometimes consists in an absolute limitation of the supply. There are things of which it is physically impossible to increase the quantity beyond certain narrow limits. Such are those wines which can be grown only in peculiar circumstances of soil, climate, and exposure. Such

[29] This is a movement "along" the demand curve.
[30] This is a movement "of" the demand curve.

> also are ancient sculptures; pictures by old masters; rare books or coins, or other articles of antiquarian curiosity. Among such may also be reckoned houses and building-ground in a town of definite extent (such as Venice, or any fortified town where fortifications are necessary to security); the most desirable sites in any town whatever; houses and parks peculiarly favoured by natural beauty, in places where that advantage is uncommon. Potentially, all land whatever is a commodity of this class; and might be practically so in countries fully occupied and cultivated.

Mill follows Ricardo very closely, adding examples of commodities whose supply cannot be expanded. And he also follows Ricardo when he passes into the second group of commodities whose supply is limited but can be increased by increased production. Within this second group there are, in turn, two subgroups: 1) commodities whose production can be increased with decreasing costs, mainly industrial ones, and 2) commodities whose production can only be increased with increasing costs, mainly agricultural production. Mill (1848, pp. 444–445) puts the idea as follows:

> But there is another category (embracing the majority of all things that are bought and sold), in which the obstacle to attainment consists only in the labour and expense requisite to produce the commodity. Without a certain labour and expense it cannot be had: but when any one is willing to incur these, there needs be no limit to the multiplication of the product. […] There is a third case, intermediate between the two preceding, and rather more complex, which I shall at present merely indicate, but the importance of which in political economy is extremely great. There are commodities which can be multiplied to an indefinite extent by labour and expenditure, but not by a fixed amount of labour and expenditure. Only a limited quantity can be produced at a given cost: if more is wanted, it must be produced at a greater cost. To this class, as has been often repeated, agricultural produce belongs; and generally all the rude produce of the earth; and this peculiarity is a source of very important consequences; one of which is the necessity of a limit to population; and another, the payment of rent.

From here on, Mill's conclusions are identical to Ricardo's. Commodities have a natural exchange value and a market exchange value; the former is determined by production costs, i.e., wages and profits (does not include land rent), and the latter is determined by supply and demand. The market price tends to match the natural price (Mill, 1848, pp. 451–452).

> The value at any particular time is the result of supply and demand; and is always that which is necessary to create a market for the existing supply. But unless that value is sufficient to repay the Cost of Production, and to afford, besides, the ordinary expectation of profit, the commodity will not continue to be produced. Capitalists will not go on permanently producing at a loss. They will not even go on producing at a profit less than they can live on. […] The cost of production, together with the ordinary profit, may therefore be called the *necessary* price, or value, of all things made by labour and capital. Nobody willingly produces in the prospect of loss. Whoever does so, does it under a miscalculation, which he corrects as fast as he is able. […] Whenever a new line of business presents itself, offering a hope of unusual profits […] there is sure to be in a short time so large a production or importation of the commodity, as not only destroys the extra profit, but generally goes beyond the mark, and sinks the value as much too low as it had before been raised too high; until the over-supply is corrected by a total or partial suspension of further production.

Mill (1848, p. 456)arrives at the following conclusion:

> To recapitulate: demand and supply govern the value of all things which cannot be indefinitely increased; except that even for them; when produced by industry, there is a minimum value, determined by the cost of production. But in all things which admit of indefinite multiplication, demand and supply only determine the perturbations of value, during a period which cannot exceed the length of time necessary for altering the supply. While thus ruling the oscillations

> of value, they themselves obey a superior force, which makes value gravitate towards Cost of Production, and which would settle it and keep it there, if fresh disturbing influences were not continually arising to make it again deviate. To pursue the same strain or metaphor, demand and supply always rush to an equilibrium, but the condition of *stable* equilibrium is when things exchange for each other according to their cost of production, or, in the expression we have used, when things are at their Natural Value.

In the following quote, it is clear that for Mill (1848, p. 462), as for Ricardo, work is *not* the only determinant of the exchange value, or natural price, of things:

> Profits, therefore, as well as wages, enter into the cost of production which determines the value of the produce.

For Mill (1848, p. 473), land rent is not part of the determinants of the natural price of things. The landowners only keep the extraordinary profits produced by the best quality land until they match the profits of all activities:

> Rent, in short, merely equalizes the profits of different faring capitals, by enabling the landlord to appropriate all extra gains occasioned by superiority of natural advantages. If all landlords were unanimously to forego their rent, they would but transfer it to the farmers, without benefiting the consumer; for the existing price of corn would still be an indispensable condition of the production of part of the existing supply, and if a part obtained that price the whole would obtain it. Rent, therefore, unless artificially increased by restrictive laws, is no burthen on the consumer; it does not raise the price of corn, and is no otherwise detriment to the public, than inasmuch as if the state had retained it, or imposed an equivalent in the shape of a land-tax, it would then have been a fund applicable to general instead of private advantage.

Finally, Mill, the last of the classics, also falls into circular reasoning by making prices dependent on wages and wages on prices. In Mill's case, the topic is more transparent as he devotes a lot of space to explaining that wages rise when capital accumulation (wage pool) grows faster than population or, in other words, when demand for labor increases faster than supply. Mill's (1848, p. 347) circular reasoning does so, even quoting and supporting Ricardo:

> Mr. Ricardo considers these two cases to comprehend all cases. He assumes that there is everywhere a minimum rate of wages: either the lowest with which is physically possible to keep up the population, or the lowest with which the people will choose to do so. To this minimum he assumes that the general rate of wages always tends; that they can never be lower, beyond the length of time required for a diminished rate of increase to make itself felt and can never long continue higher. This assumption contains sufficient truth to render it admissible for the purposes of abstract science; and the conclusion which Mr. Ricardo draws from it, namely, that wages in the long run rise and fall with the permanent price of food, is, like almost all his conclusions, true hypothetically, that is, granting the suppositions from which he sets out. But in the application to practice, it is necessary to consider that the minimum of which he speaks, especially when it is not a physical, but what may be termed a moral minimum, is itself liable to vary.

John S. Mill was much more precise and more systematic in expounding the principles of classical economics than Adam Smith and David Ricardo. Still, he failed to eliminate his major mistakes. However, as we have already pointed out, it made an important contribution by distinguishing between the "demand" and the "quantity demanded" of a commodity. This distinction made it possible to correct a great ambiguity in the reasoning of the classics. Mill (1848, p. 448) poses the ambiguity as follows:

> The demand, therefore, partly depends on the value. But it was before laid down that the value depends on demand. From this contradiction how shall we extricate ourselves? How solve the

> paradox, of two things, each depending upon the other?

And he solves the paradox, without drawing them, utilizing "curves" of demand and supply, explaining what happens when the price differs from the one that equals the quantity demanded and the one offered. After developing the explanation very clearly and precisely, Mill (1848, p. 448) concludes:

> […] the proper mathematical analogy is that of an *equation*. Demand and supply, the quantity demanded and the quantity supplied, will be made equal. If unequal at any moment, competition equalizes them, and the manner in which this is done is by an adjustment of the value. Of the demand increases, the value rises; if the demand diminishes, the value falls: again, if the supply falls off, the value rises; and falls if the supply is increased. The rise or the fall continues until the demand and supply are again equal to one another: and the value which a commodity will bring in any market is no other than the value which, in that market, gives a demand just sufficient to carry off the existing or expected supply.[31]

John Stuart Mill is the culmination of the thinking of classical economists. Unlike Ricardo, his writing is clear, and he surpassed Adam Smith in the systematic way of exposing the themes. But Mill's thinking is basically Ricardian, except in some points, such as the one we have just seen, Mill expands, enriches, and clarifies Ricardo's thought. Since his father, James, was close friends with Ricardo and Malthus and many times little John had to attend the discussions of the three of them, this influence is clearly explainable. The popularity that classical economics achieved with J. S. Mill made the theory of marginal utility, which shook the foundations of this school, find in its beginnings strong opposition. As almost always happens in science, those who make discoveries are usually considered eccentric, theorists disconnected from the world or crazy, when they are not locked up or burned. One of the hardest things is to break with ingrained ideas. John S. Mill made classical economics a real bulwark in England; breaking down their mistakes was no easy task.

10.5. Karl Marx (1818 – 1883)

Marx must be the most enigmatic and misunderstood writer in his theory of value and all his thoughts. When Marx is spoken of, he is immediately associated with communism. One perhaps attributes certain communist ideas to him that he would not agree with. What the world knew in the twentieth century as the "communist" experiment seems to be a far cry from Marx's ideas. His theory of value, if (as in the case of the classics) it is the case that he has one, was unfairly understood and interpreted. Marx is associated with a labor theory of value, and perhaps, in some respect, Marx has been more subjectivist than the classics. His economic theory is classical. He was far inferior to the classics because of the great contradictions he incurred. Still, most of the attacks on Marx's theory of "value" are inaccurate.

His thinking is somewhat enigmatic because the first volume of *Capital* was published in 1867, three years before the theory of marginal utility. Marx died in 1883, and the new theory of value had reached a great development by then. In 1885 Engels published the second volume of *Capital* and the third one in 1894. It was never known how Marx reacted to the theory of marginal utility. Marx develops his theory of "exchange value" in the first chapter of his work and, in many respects, is central to his later conclusions. Some speculate that the emergence of marginal utility theory forced Marx not to publish or postpone the publication of the other two volumes. All this is very enigmatic and interesting. Perhaps, like Aristotle's theory of value, an answer that does not go beyond being an irrefutable conjecture cannot be given.

Following all the classics, Marx begins by arguing that for things to have exchange value, they have to be useful or have a use value. And he put as much emphasis as the classics on this point. Marx (1867, pp. 41–42)says:

> A commodity is, in the first place, an object outside us, a thing that by its properties satisfies human wants of some sort or another. The nature of such wants, whether, for instance they

[31] Mill (1848, p. 446) acknowledges that Jean-Baptiste Say was ahead of him on this point: "Undoubtedly the true solution must have been frequently given, though I cannot call to mind any one who had given it before myself, except the eminently clear thinker and skillful expositor, J. B. Say."

> spring from the stomach or from fancy, makes no difference. Neither are we here concerned to know how the object satisfies these wants, whether directly as means of subsistence, or indirectly as means of production.

We can see that Marx's (1867, pp. 42–43, italics added) subjectivism even reaches the means of production. Human needs, whether physical or merely mental, give value to things.

> The utility of a thing makes it a *use-value*. But this utility is not a thing of air. Being limited by the physical properties of the commodity, it has no existence apart from that commodity. A commodity, such as iron, corn, or a diamond, is therefore, so far as it is a *material thing*, a *use-value*, something useful. This property of a commodity is independent of the amount of labour required to appropriate its useful quality. […] In the form of society we are about to consider, they are, in addition, the material depositories of *exchange value*.

In this paragraph, it can be seen very clearly that Marx had, like the classics, an undeveloped subjective theory of value. For a thing to have exchange value, it must first have use value, which depends on human needs. The quote also shows the scholastic influence in the sense that it is things that can meet needs and not the human mind that perceives utility. The ability of a commodity to satisfy needs is something "objective" in things.

We can produce one more quote in which it is clear that for Marx (1867, p. 48), the use value, or simply the value, of things is subjective, i.e., it depends on whether they satisfy needs:

> […] nothing can have value, without being an object of utility. If the thing is useless, so is the labour contained in it; the labour does not count as labour, and therefore creates no value.

From now on, Marx follows the same path as the classics: he forgets use value and begins to explain the determination of the exchange value. In the following quote Marx (1867, pp. 43–44) begins to describe the determinants of exchange value; note the strong influence of Aristotle and the scholastics.[32]

> Let us take two commodities, *e.g.*, corn and iron. The proportions in which they are exchangeable, whatever those proportions may be, can always be represented by an equation in which a given quantity of corn is equated to some quantity of iron: *e.g.*, 1 quarter corn=x cwt, iron. What does this equation tell us? It tells us that in two different things – in 1 quarter of corn and x cwt. of iron, there exists in equal quantities something common to both. The two things must therefore be equal to a third, which in itself is neither the one nor the other. Each of them, so far as it is in exchange value, must therefore be reducible to this third.

You can see the Aristotelian-Scholastic influence in that the things exchanged have to keep a kind of equality. Marx (1867, p. 44) is carried away by this idea; for two things to be equal to each other, they have to have a common factor, and after discarding the use value, which could have led him down a better path, he concludes that labor is the only thing common to all commodities.

> If then we leave out of consideration the use-value of commodities, they have only one common property left, that of being products of labor.

Marx is already one step away from his labor theory of value or, more precisely, price-labor. To determine the relative prices of the different commodities, it will be necessary to equalize the hours of labor required for each production (Marx, 1867, p. 45).

> A use-value, or useful article, therefore, has value only because human labour in the abstract has been embodied or materialized in it. How, then, is the magnitude of this value to be measured? Plainly, by the quantity of the value-creating substance, the labour, contained in the article. The quantity of labour, however, is measured by its duration, and labour-time in

[32] It seems Tawney (1926, p. 48) is not exaggerating when he states that "The last of the Schoolmen was Karl Marx."

> its turn finds its standard in weeks, days, and hours.

Some marginal utility theorists have resorted to very superficial criticisms to refute Marx's theory of "labor-value," such as that picking a diamond from the floor requires very little labor and yet that diamond would have much more value than a piece of bread that can take a few hours of labor; this shows that labor time does *not* determine the value of things or, better, the price of items. Of these examples, there are a few, but all of them were refuted by Marx (1867, pp. 45–46) himself.

> Some people might think that if the value of a commodity is determined by the quantity of labour spent on it, the more idle the unskillful the labourer, the more valuable would his commodity be, because more time would be required in its production. The labour, however, that forms the substance of value, is homogeneous human labour, expenditure of one uniform labour-power.

For Marx, what determines relative prices is, here he adds a difference from the classics, the labor "socially necessary" for their production. "Socially necessary" labor is an average of individual labor forces; here the work of the clumsy and the skillful are averaged (Marx, 1867, p. 46).

> The labour-time socially necessary is that required to produce an article under the normal conditions of production, and with the average degree of skill and intensity prevalent at the time.

Picking a diamond from the ground does not represent the socially necessary labor usually required for its production (Marx, 1867, p. 46, italics added).

> We see then that that which determines the *magnitude of the value* of any article is the amount of labour socially necessary, or the labour-time socially necessary for its production. Each individual commodity, in this connection, is to be considered as an average sample of its class. Commodities, therefore, in which equal quantities of labour are embodied, or which can be produced in the same time, have the same value. The value of one commodity is to be the value of any other, as the labour-time necessary for the production of the one is to that necessary for the production of the other.

Socially necessary labor is the average time of labor hours it takes to produce a certain good. This average is influenced by many things that can change and therefore modify the exchange value of things (Marx, 1867, p. 47 italics added):

> The *value* of a commodity would therefore remain constant, if the labour-time required for its production also remained constant. But the latter changes with every variation in the *productiveness of labour*. This productiveness is determined by various circumstances, amongst others, by the average amount of skill of the workmen, the state of science, and the degree of its practical application, the social organization of production, the extent and capabilities of the means of production, and by *physical conditions*.

And Marx (1867, p. 47)adds:

> If we could succeed at a small expenditure of labour, in converting carbon into diamonds, their value might fall below that of bricks. […] The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labour incorporated in it.

We have seen that for the classics, the natural price of things is determined by the costs of production. The difference between them lies in the *variables that make up the costs*. For Adam Smith, the costs were composed of labor, capital, and land. In contrast, for David Ricardo and John S. Mill, land is not a cost of production. It, therefore, does not contribute to the exchange value of things. For them, what the rent of the land does is equalize the rates of profit of the different activities. The landlord keeps part of the profits of the capitalists.

Marx is going to introduce a significant change in this scheme. For him, the only thing that generates value is labor, and the capitalist appropriates a part of the exchange value that belongs to the worker.[33] So, for Marx, the capitalist plays the role that the landlord plays for Ricardo and Mill: he keeps part of the wealth he has not produced. This is explained in his theory of surplus value.

For the classics, the wage is the remuneration for the worker's work. Marx will distinguish between labor and labor power, allowing him to explain the surplus value. Marx (1867, p. 586) develops his point of view as follows:

> ON the surface of bourgeois society the wage of the labourer appears as the price of labour, a certain quantity of money that is paid for a certain quantity of labour. Thus people speak of the value of labour and call its expression in money its necessary or natural price. On the other hand they speak of the market prices of labour, i.e., prices oscillating above or below its natural price.
> But what is the value of a commodity? The objective form is the social labour expended in its production. And how do we measure the quantity of this value? By the quantity of the labour contained in it. How then is the value, e.g., of a 12 hours' working day to be determined? By the 12 working hours contained in a working day of 12 hours, which is an absurd tautology.

In this paragraph, Marx expounds on the classical theory according to which wages, like any other commodity, have a natural price and a market price. The first is given by the minimum subsistence level of the worker and his family, and the second is the market's supply and demand. The market wage tends to be equal to the natural one. We had seen that this implied reasoning in a circle on the part of the economists of this school. Marx saw a complication in the classical theory of wages and exchange value. Suppose the exchange value of things is determined only by the amount of socially necessary labor. In that case, the capitalist can only sell them for that value, but if he pays the worker the total hours worked, there would be no profit or *surplus value*. Obviously, this leads to the conclusion that *surplus value* can exist if the worker is not paid the full value of what he produces (Marx, 1867, p. 587, italics added):

> The working day of 12 hours embodies itself, e.g., in a money value of 6s. Either equivalents are exchanged, and then the labourer receives 6s. for 12 hours' labour; the price of his *labour* would be equal to the price of his product. In this case he produces no *surplus-value*, for the buyer of his labour, the 6s. are not transformed into capital, the basis of capitalist production vanishes. But it is on this very basis that he sells his labour and that his labour is wage-labour. Or else he receives for 12 hours' labour less than 6s., i.e., less than 12 hours' labour. Twelve hours labour are exchanged against 10, 6, 8c., hours' labour. This equalisation of unequal quantities not merely does away with the *determination of value*. Such a self-destructive contradiction cannot be in any way even enunciated or formulated as a law.

Marx (1867, p. 589, italics added) argues that the classics fell into this contradiction because they confused "labor" with "labor power:"

> [...] what is the cost of production—of the labourer, i.e., the cost of producing or reproducing the *labourer himself*? This question *unconsciously* substituted itself in political economy for the original one; *for the search after the cost of production of labour as such turned in a circle* and never left the spot. What economists therefore call value of labour, is in fact the *value of labour-power*, as it exists in the personality of the labourer, which is as different from its function, labour, as a machine is from the work it performs.

[33] Even though it is an isolated paragraph, Marx (1867, p. 49 italics added)○states thar "[w]e see, then, *that labour is not the only source of material wealth, of use-values produced by labour*. As William Petty puts it, labour is its father and the earth its mother." This position departs greatly from Ricardian theory of the value with which Marx is usually associated.

Marx (1867, p. 590, italics added) adds below:

> The value of labour-power thus determines the value of labour, or, expressed in money, its necessary price. If, on the other hand, the price of labour-power differs from its value, in like manner the *price of labour* differs from its so-called value.
> As the value of labour is only an irrational expression for the value of labour-power, it follows, of course, that the *value of labour must always be less than the value it produces*, for the capitalist always makes labour-power work longer than is necessary for the reproduction of its own value.

For Marx (1867, p. 591), the working day is divided into two parts: 1) necessary labor and 2) surplus labor. With the necessary work, the worker produces what he and his family need to live or, if you like, to replenish the labor force. Surplus labor is the one that works for free for the capitalist. It is the one that generates surplus value.

> *The wage-form thus extinguishes every trace of the division of the working-day into necessary labour and surplus-labour, into paid and unpaid labour*. All labour *appears* as paid labour. In the corvée, the *labour* of the worker for himself, and his compulsory labour for his lord, differ in space and time in the clearest possible way. In *slave-labour*, even that part of the working-day in which the slave is only replacing the value of his own means of existence, in which, therefore, in fact, he works for himself alone, appears as labour for his master. All the slave's labour appears as unpaid labour. In wage-labour, on the contrary, even surplus labour, or unpaid labour, appears as paid. There the property-relation conceals *the labour of the slave for himself*; here the money-relation conceals the *unrequited labour of the wage-labourer*.

Marx (1867, p. 593, italics added) concludes:

> […] the only thing that interests him [the capitalist] is the *difference* between the price of labour-power and the value which its function creates. But, then, he tries to buy *all commodities* as cheaply as possible, and always accounts for his profit by simple cheating, by buying under, and selling over the value. Hence, he never comes to see that, if such a thing as the *value of labour* really existed, and be really paid this value no capital would exist, his money would not be turned into capital.

In this way, Marx concludes that the profit, or surplus value, that the capitalist obtains is because he does not pay the worker all the value of the labor. The worker produces wealth for the total hours worked but receives only a part of the value created as pay. That part of the remuneration it receives is the one that replenishes the workforce with the necessary work; i.e., the worker gets only the salary required for his subsistence. The gain comes simply from a robbery.

Both the classics and Marx's explanation of the theory of exchange value have contradictions that they could not resolve because they did not correctly link the price of things to their value or, if you like, their exchange value to their use value. In Part II of this article, we will see how the marginalists found a solution to this problem. As we said earlier, the emergence of marginal utility to explain the use value of things solves the vicious circle of the classics. It overthrows Marx's theory of exploitation (or surplus value). In any case, Marx, like the classics, incurs contradictions, *even within his own theory*.

The first contradiction is so evident that he perceives it and has to go out and make a passing defense. All production requires constant capital, which is invested in means of production (machines, tools, buildings, etc.), and variable capital, which consists of wages paid. Only variable capital can generate surplus value of the total capital invested because the worker produces commodities for an exchange value higher than the wage he is paid. Surplus labor gives rise to surplus value; this cannot happen with constant capital. From this, Marx (1867, pp. 334–335) concludes that capitalists who employ a greater proportion of variable capital must have a greater surplus value than those who employ a greater proportion of constant capital:

> A third law results from the determination, of *the mass of the surplus-value produced*, by *the two factors*: rate of surplus-value and amount of variable capital advanced. The rate of surplus-value, or the degree of exploitation of labour-power, and the value of labour-power, or the amount of *necessary working time* being given, it is self-evident that *the greater the variable capital, the greater would be the mass of the value produced and of the surplus-value*. [...] *With a given rate of surplus-value, and a given value of labour-power, therefore, the masses of surplus-value produced vary directly as the amounts of the variable capitals advanced*. [...] The law demonstrated above now, therefore, takes this form: *the masses of value and of surplus-value produced by different capitals—the value of labour-power being given and its degree of exploitation being equal—vary directly as the amounts of the variable constituents of these capitals, i.e., as their constituents transformed into living labour-power*.

Marx's conclusion was, and is, in contradiction with what was observed in practice. It was not the capitalists who hired manual weavers who made the most profit but those who invested capital goods. Marx (1867, p. 335) realized this problem:

> This law clearly contradicts all experience based on appearance. Every one knows that a cotton spinner, who, reckoning the percentage on the whole of his applied capital, employs much constant and little variable capital, does not, on account of this, pocket less profit or surplus-value than a baker, who relatively sets in motion much variable and little constant capital. For the solution of this apparent contradiction, many intermediate terms are as yet wanted, as from the standpoint of elementary algebra many intermediate terms are wanted to understand that 0/0 may represent an actual magnitude.

Marx promises to resolve this contradiction in the third volume (see Book Four about this). As is known, the second and third volumes of *Capital* appeared published after Marx's death. Still, his followers were disillusioned because the solution to this problem never occurred.

In the third volume, Marx becomes entangled in a great contradiction from which he cannot emerge by wanting to reconcile his theory of exchange value based on socially necessary labor with the organic structure of capital (proportions of constant and fixed capital) and with an essential condition, which is that rates of profit tend to be equal in all industries. Marx's (1894, p. 183) explanation is based on the following table.

Table 5

	Capitals	Rate of surplus value	Surplus value	Value of commodities	Rate of Profit
I.	$80c + 20v$	100%	20	120	20%
II.	$70c + 30v$	100%	30	130	30%
III.	$60c + 40v$	100%	40	140	40%
IV.	$85c + 15v$	100%	15	115	15%
V.	$95c + 5v$	100%	5	105	5%

The "Capitals" column represents five distinct "spheres" of production, which have different organic compositions of constant capital, c, and variable, v; in all cases, the invested capital is 100. The "surplus value quota" expresses the percentage of surplus value concerning variable capital, which is the only one that produces surplus value. Suppose the surplus value share is 100%. In that case, the surplus value (third column) equals the variable capital in the first column. If constant capital is amortized in a single period, it must be replenished with hours of labor. Therefore the fourth column, "value of the product," is equal to the constant capital to be replenished, plus variable capital (wages), plus surplus value (hours of labor not paid by the capitalist). The sum of all this makes up the *socially necessary work*, that is, the value of the product. The last column, "profit quota," is the return on invested capital: capital gain/capital.

Marx's (1894, p. 185) goes a step further "in order not to arrive at entirely wrong conclusions" (p. 184). This step consists of putting together another table assuming that constant capital does not wear out in a single production period. The following table is similar to the previous one, assuming different depreciations for the different spheres of production. Therefore, to calculate the exchange value of commodities, only the amortized part of the constant capital must be computed because it must be replaced with *socially necessary* hours of labor. This table has two more columns with respect to the previous one. One is added with the wear and tear of constant capital, c (the figures are arbitrary), and another with the "cost price" of the product, which is equal to the wages paid (variable capital) plus the wear and tear of constant capital. It also has two more rows; the penultimate is the sum of the values of the columns, and the last is the mean.

Table 6

	Capitals	Rate of surplus value	Surplus value	Rate of profit	Used up c	Value of commodities	Cost Price
I.	$80c + 20v$	100%	20	20%	50	90	70
II.	$70c + 30v$	100%	30	30%	51	111	81
III.	$60c + 40v$	100%	40	40%	51	131	91
IV.	$85c + 15v$	100%	15	15%	40	70	55
V.	$95c + 5v$	100%	5	5%	10	20	15
Total	$390c + 110v$		110	100%			
Average	$78c + 22v$		22	22%			

This table attempts to summarize the conclusions of Volume I of *Capital*. The relative value or price of the various commodities is given by the *socially necessary labor* of each commodity (sixth column of the last table). The table also shows that the spheres with an organic composition of capital with a higher proportion of variable capital obtain a more significant share of profits.[34]

However, this table presents a complication concerning a fundamental conclusion for classical economists and for Marx himself: rates of return (quotas of profit for Marx) must be equal in all activities to be in equilibrium. But the two tables show significant differences between the proportional gains of each sphere. In Marx's example, the average share of surplus value is 22%, assuming that the market makes all profits tend to that average. It is necessary to calculate at what prices the profit rates of all spheres are equalized to 22%. To this end, he presents a third table. Spheres below average (22%) will have to have a higher price, and those above average will have to have a lower one.

In this third table, the following contradiction is presented. On the one hand, we have the column *Value of commodities*, which is the one that establishes the values or relative prices of the different spheres according to the *socially necessary work*. But on the other hand, we have the column *Price of commodities*, which establishes the relative prices so that the rates of profit are equalized. The results are not the same. Therefore, it is worth asking: what determines the exchange value of things: socially necessary work or the market through competition? On the other hand, if relative prices are fixed by competition, it is no longer true that industries that use a more significant proportion of variable capital obtain a greater profit or surplus value.

Table 7

	Capitals	Surplus value	Value of commodities	Cost price	Rate of profit	Deviation of price from value
I.	$80c + 20v$	20	90	70	22%	+2
II.	$70c + 30v$	30	111	81	22%	-8
III.	$60c + 40v$	40	131	91	22%	-18
IV.	$85c + 15v$	15	70	55	22%	+7
V.	$95c + 5v$	5	20	15	22%	+17

Marx (1894, p. 186) explains this table in the following way:

> Since the capital invested in the various lines of production are of a different organic composition, and since the different percentages of the variable portions of these total capitals

[34] This is the problem that Marx promised to solve in Volume III.

> set in motion very different quantities of labor, it follows that these capital appropriate very different quantities of surplus-labor, or produce a very different quantities of surplus-value. Consequently the rates of profit prevailing in the various lines of production are originally very different. These different rates of profit are equalized by means of competition into a general rate of profit, which is the average of all these special rates of profit, which is the average of all these special rates of profit. The profit allotted accordingly to this average rate of profit to any capital, whatever may be its organic composition, is called average profit.

Marx's final conclusion is that the exchange value of things is determined by competition in the market until the rates of profit are equalized "whatever may be its organic composition." Not only is this not an answer to the problem that volume he promised to solve, but it is also a global contradiction of everything argued in that volume. No longer does socially necessary labor determine the exchange value of commodities. It is no longer the organic structure of capital that determines profits. Marx (1894, p. 188) intended to resolve this contradiction as follows: if we add the column *Value of commodities* we obtain result 422, which is equal to the sum of the column *Price of commodities*.

> [...] if we place the sum of the cost-prices of the whole country on one side, and the sum of its surplus-value, or profits, on the other, it is evident that the calculation must come out right.

This "solution" provoked great disappointment among Marx's followers. If there is one thing that the theory of exchange value must explain, it is relative prices, i.e., how much of a commodity must be delivered to obtain one unit of another. If, for example, the price of an apple is $3 and that of a banana $1, what is the use of saying that the sum of its prices is $4? This is not what the [exchange] theory of value has to explain. What it has to explain are relative prices.

In this way, the eagerly awaited volumes II and III of *Capital* could not answer the problem of value. Despite his criticisms of classical economists, Marx fell into the same trap of circular reasoning and added more inconsistencies by wanting to reconcile two different theories of prices, that of socially necessary labor, with that of competition.

11. Part I Conclusions

The French economist Jean-Baptiste Say, who we will deal with in Part II, made a significant analytical contribution: he distinguished between capitalist and entrepreneur. The classics brought together both functions into one. This distinction allowed Say to break the vicious circle of classics that costs determine prices and prices determine costs. While Say did not have a highly developed theory of value, he made distinctions that allowed him to advance further than the classics. Without developing the theory of marginal utility, the distinction between the function of the entrepreneur and that of the capitalist allowed him to solve some inconsistencies of classical theory.

Strictly speaking, it can be said that until the arrival of the marginalists, there was practically no theory of value. With rare exceptions, thinkers referred to prices or exchange value, not value or use value. At first, the analysis was basically ethical, and slowly such a theory was emerging and gaining greater importance. The moral aspect could be clearly separated from the theoretical, especially the theory of value.

The classics did not have a theory of value [of use], let alone what was called a labor theory of value. They developed a theory of prices based on the cost of production, and this was the great mistake of this school that made it theoretically inconsistent. There were authors, such as the Earl of Lauderdale, who made significant contributions but were surpassed by the momentum of classical economics.

In the second half of the nineteenth century, the classics were "the" economists. It was not easy for the theory of value or marginal utility to break through to this firmly rooted school despite its fundamental errors.

12. References

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[i] TN: This article was originally published in 1994, in LIBERTAS, volume 20 (May).
The translation includes some grammatical revisions for readability and clarity. The original meaning and emphasis of the text has been preserved striving to be loyal to the original text in Spanish.
I appreciate the contribution of Peter Lewin to this translation. Any misrepresentation from the original text is my own doing.
[ii] Part II was originally published in the following issue of LIBERTAS (volume 21). The translation of Part II is included in this issue of *LIBERTAS: SEGUNDA ÉPOCA*.
[iii] TN: My translation. Original text in Spanish was not available.
[iv] TN: Reference to this passage is missing in the original text. Translation is my own.
[v] TN: Original text in Spanish was unavailable. Translation is my own. Original reference is to a book chapter by Chafuen in *Cristianismo y Libertad* (1982) edited by Alberto Benegas Lynch (h) published by Fundación para el Avance de la Libertad.
[vi] TN: As cited in Spanish by Grice-Hutchinson (1982, pp. 482–483). Translation is my own.
[vii] TN: My translation.
[viii] TN: My translation.
[ix] All Tomas de Mercado translations are my own.
[x] All Luis de Molina translations are my own.
[xi] TN: Gamacho's translation is my own.
[xii] TN: JCC attributes this passage to Galiani (as cited by Grice-Hutchinson), however is a passage by Sewall (1901, p. 92).
[xiii] TN: Citation by Kauder was unavailable. My translation back to English.