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Article

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Academic Journal of Economic Studies
Vol. 5, No. 2, June 2019, pp. 12–20
ISSN 2393-4913, ISSN On-line 2457-5836

Value, Market and Society. A Critical Review

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Abstract

Value is the importance or worth that we ascribe to the possession of objects for the purpose of gratifying our needs. Objects of no importance have no value. On the other hand, importance is a relative measure depending on additional benefits of the objects for us. Since more relative benefits come from exchange than subsistence, markets are formed. In other words, the additional value gained as a result of exchange is the main cause of market formation. Therefore, additional value and market formation are the result of a social economic process in which exchange plays the central role.

Key words

Value; economic process; relative efficiency; exchange; market

JEL Codes: D46, D47

Received: 10 March 2018 **Revised: 20 March 2019** **Accepted: 10 April 2019**

1. Introduction

The subjects of value, exchange, and the market formation are among the oldest and the most challenging issues addressed by economists throughout history. However, they have never been fully explained. Understanding the concepts of exchange and market depends on understanding the concept of value. Menger (1875) believes that Adam Smith did not explain the causes for exchange. On the other hand, the subject of value has been marginalized since the beginning of the 20th century. Instead, economists have focused more on price formation and equilibrium. Recent theorists such as Arrow (1972) and Debro (1954) have often addressed the subjects of price and equilibrium. The theory of price addresses the exchange methods, market types, and equilibrium as opposed to the subject of value which seeks the causes for the formation of trade (and market). Value comes before exchange, as it is the cause, while price comes after exchange as it is the result of it. The causes of market formation were left aside as the concept of value was marginalized with economists. The Core theory in Economics cannot be analyzed without first understanding the concept of additional value.

2. Literature review

Economists have investigated the concept of value from various perspectives. The theory of value has been used to imply 'purchasing power', 'cost of production', 'a dependent concept', or 'final satisfaction/fulfilment of needs'. Most economists do not separate value from price and use the two concepts interchangeably. The relation between the theory of value and theory of economy is also different with economists. Some have considered the economy to originate from the theory of value (Ricardo, 1821), while others consider the 'Division of Labour' as the starting point of their theory of economy (Smith, 1776). 'Commodity' or 'product' has also been considered as a start for a theory of economy by some other economists. Therefore, the concept of value has been ambiguous in the minds of economists. It has been considered as either an objective or a subjective concept. Both the objective and subjective concepts play important roles in the formation of an object's price. The price of goods is the result of such interaction. The total value of goods is a combination of subjective and objective values. Now, the questions are: '*What is the relationship between the two concepts of value?*' and that, '*Is it possible to find a unique comprehensive concept for value?*'

2.1. Classical Economists

Classical economists considered the issue of value as a materialistic and objective matter and related it to the cost of production and labour. Adam Smith (1776) described value as originating from two separate concepts, namely value in use and value in exchange. Jevons mentions this in his book The Principles of Political Economy, 'Adam smith noticed the extreme difference in meaning between value in use, and value in exchange' (Jevons, 1850). However, he (Smith) does not define the relationship between the two meanings. How the two concepts are related with the purchasing power is also unclear. He relates the concept of value to the purchase of labour in exchange at one point, and the actual value of goods to the 'toil and trouble' of acquiring them at the other. He mentions, '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' (Smith, 1776). Smith evaluates the value of a commodity, on one side, as equal to the troubles faced to acquire it, and on the other side, equal to the amount of labour needed to produce it. Therefore, there is a cost (toil and trouble) and an opportunity (to relieve him of doing work). Based on this, three types of value have been considered,

1. The value of a product equals the toil and trouble.

2. The actual value of a product is the exchange of effort

3. The actual value of a product equals the amount of labour needed to produce it, or efforts that the buyer imposes on others.

He has tried to define labour as the relationship among these three types of value. Smith mentions, 'Because of this, the real index for exchange value is labour', also 'What can be purchased by money or other goods shields us from the trouble of acquiring it. Therefore we purchase it with the amount of labour that equals that effort' (Smith, 1776). In this case, if the two are equal why should they be exchanged without any additional value?

Von Mises (1949) refers to the exchange of equal-valued commodities as a mistake of classical economists. Similar to Smith, Ricardo also recognizes two aspects in value; he relates them on one side to the amount of commodities it is exchanged for, and on the other side, to the amount of labour required to produce it Ricardo considers the value in use as the necessary prerequisite for value in exchange. However, he does not speak of the relationship between these two kinds of value. Each product has its own unique exchange value as well as utility. Stewart Mil (1848) says, 'Value is only exchange value. Value of an object equals the amount of other objects traded for it.' Also, 'value does not only depend on utility, but also the trouble of acquiring an object' (Mill, 1848).

2.2. Neo-classics

Jevons considered value as related to utility: 'Research has led me to understand that value is ultimately dependent on utility. Although many believe that labour is the basis for value rather than utility, labour is in fact the cause of value' (Political Economy, 1965), '*I have to admit that the concept of value is accompanied with complications and ambiguity*'. Although Menger and Jevons had similar theories of value, Jevons explained his theory through the concept of utility, while Manger used the concept of satisfaction. '*Jevons referred to the ultimate utility while Manger referred to levels of person's satisfaction related to his needs*' (Menger and Jevons on vale a crucial difference by Maurice Lagueux Université de Montréal).

2.3. Recent Works

Mises (1949) relates the basis of exchange to the preferences, 'if there is a diversity in valuation, all that can be said with regard to it is that one a is valued higher, that it is preferred to one b.' On the other hand, Mises points out that the value of commodities are is not equal in exchange. However, he does not mention the source of this additional value. In more recent decades, economists have shifted focus from the concept of value, its cause, and relation between consumption and exchange value, to the supply and demand rule and the issue of equilibrium. Some others such as Arrow (1972) and Debreu (1954) have considered the faults in the theory of price and equilibrium and paid less attention to the concept of value and causes for the formation of exchange and market.

3. Importance and Value

Value depends on how objects are related to people, i.e. it depends on the economic and psychological effects of objects on people. People have important needs and their ability of satisfying their needs is also important to them. The value of objects is formed by the wants and needs of people on one side, and their abilities to acquire things on the other. Simmel has a different view toward the value of objects: 'The value of objects is not related to their quality. It is merely a judgement which lingers in mind' (*The Philosophy of Money*, Simmel, 1968). This judgment is focused on the significance of objects for people. Wicksell related the value of objects to their importance in satisfying our needs: 'The value of an object is merely the importance that we ascribe to its possession for the purpose of gratifying our wants'(Wicksell, 1897). If an object loses importance, it loses value. But if it becomes important, its value will depend on its capacity to gratify our needs and also its accessibility. Objects with more capacity to satisfy human needs will gain more importance and value. Therefore, the value of objects has a dual basis: psychological and physical needs and their power of ownership. In common literature, the former is related to utility and the latter to the purchasing power. We relate them to humans and how important they are for us. Objects are important to humans either psychologically or economically.

Two kinds of importance are known in human nature. The importance of happiness and comfort rather than pain, sorrow, and hardship is the first aspect in which objects become important. The second is the economic importance or the power of ownership, i.e. the importance that people ascribe to their own power of purchasing and wealth in exchange for obtaining an object. The former kind of importance reflects the subjective value of objects and the latter is rooted in their objective value. People react to how important things are for them. Unimportant objects will cause no reaction, and objects of similar importance will cause ignorance and indifference. Jevons divides value in the views of public to three concepts of consumption value, exchange value, and importance. He finally chooses exchange value and marginal utility as prevailing factors. However, these two are both rooted in the importance of the object to humans to satisfy their needs. The benefit one derives depends on the value or importance they ascribe to objects. This benefit comes from goods and services that satisfy our psychological and economic needs. Therefore, importance and benefit are used to address the same concept. Considering Menger's definition, he also mentions a concept similar to that of Jones: 'If economizing men become aware of this circumstance (that is, if they perceive that the satisfaction of one of their needs, or the greater or less completeness of its satisfaction, is dependent on their command of each portion of a quantity of goods or on each individual good subject to the above quantitative relationship) these goods attain for them the significance we call value. Value is thus the importance that individual goods or quantities of goods attain for us because we are conscious of being dependent on command of them for the satisfaction of our needs' (Menger, 115). As it is understood from Jevons and Menger's literature, they seem to have reached a similar concept. However, in conclusion, Jevons mentions the various levels of utility, while Manger emphasizes the satisfaction of needs. The concept of 'importance' covers all definitions of value in the view of economists: Importance includes utility. Therefore, different levels of importance correspond to different levels of utility and satisfaction.

1. Importance also relates to cost of the commodities. Objects are important to their owners due to the cost they impose on their owner.

2. Importance also includes the purchasing power. Any product, as long as it maintains marketability, is of importance to its owner.

Therefore, the value of objects may depend on their utility, the cost incurred to obtain them, or their marketability. The concept of importance covers all aspects of product value, while limiting the concept of value to labour or utility may result in complication and ambiguity on the subject. The inherent complexity of the concept of value is rooted in two paradoxes, namely the water-diamond paradox and the subjective-objective value paradox. Water and Diamond: What would happen if water was as scarce as diamond? All poor and average people would die and the world population would fall to 10% of the current number. However, the most essential substance is the most abundant in life. In the future, water scarcity may give rise to the risk of water wars. Therefore, the value of things depends on both their scarcity and their essentiality to human life.

Joy and Wealth: For some people, joy and happiness is more important than wealth, while the reverse is true for some others. On the other hand, some products and activities bring about more happiness, while others have the potential to create more wealth. Therefore, people, goods, and activities are different in relation with happiness or wealth.

The Value Criteria: Value has been measured by money throughout the history of human life. People have always used an important commodity such as salt, valuable metals, etc. in their exchanges. Each unit of money is a unit of value, and however many units of money are exchanged for a unit of a certain commodity, constitute the price of that commodity.

3.1. Value and Price

Value is a subjective concept related to human life and their interaction with the world. However, when the value of certain object(s) to certain individual(s) is considered, we are treating it as an objective matter. Therefore, when value is related to a certain object and person, we shall name it the 'price' of the commodity for the person, which is an objective concept. The following are some reasons for the objectivity of value or price:

1. Objects are of certain quantitative importance and value for people.
2. The importance and value of objects are not equal to people.
3. Objects are compared and evaluated against each other, because:
   a. They represent substitution in the basket of consumer
   b. They are exchanged with one another
   c. They are obtained by losing different values

d. They complement each other

Due to this reason, Menger (1881) defines value as the amount of commodities available to an individual (owner), and Arrow (1972) considers zero value for commodities abundant in nature. Therefore, the 'scarcity of products available to human' on one hand, and 'their comparability to each other' on the other hand, constitute the value or the price of products. As it was mentioned, value is equivalent to importance, which, in turn, includes utility and exchange value. Hence the price of a commodity represents its importance to a certain person at certain time and place. In other words, it represents the sum of utility and exchange value of the commodity for a certain person at certain time and location. Considering water and diamond, both of them are of value; however, one of them has lower exchange value and higher value is use, while the other one has low utility and high exchange value. The sum of these values or the price of them is different for different people.

3.2. Relative value and additional benefits

The difference between relative values (or prices) leads to exchange. Since people have unlimited needs, they tend to seek opportunities with as much benefit as possible, and they practice this through the exchange. When they lose something, they demand an object of a higher price: 'People buy and sell only because they appraise the things given up less than those received. Thus the notion of a measurement of value is vain. An act of exchange is neither preceded nor accompanied by any process which could be called a measuring of value' (Mises, 1949). Therefore, since exchange provides additional benefits, it is a driving force toward beneficence. Even when people migrate from certain environment to the other, they seek better exchanges. In order to keep human moving toward beneficence, increasing exchange is necessary. Therefore, relative value is the criterion for exchange. A product obtained through exchange must be of more value to the trader (buyer) than to the person losing it (seller). The trader expects to gain more value in exchange for giving up some value. Therefore, any product a person demands must represent a higher relative value than the ones he gives up in return. Likewise, the commodities they give up must constitute lower relative values. The exchange continues up to the point where these relative values cancel each other. If this rule of exchange holds for both sides, some important questions may be raised:

1. In this case both sides must benefit from the exchange. Where does the benefit come from? Does it come from nowhere? Or is it the result of war as mentioned by Edgeworth (1881)?

2. What is the criterion for identification and calculation of the benefit for people?

3. Where does the exchange start and where does it end?

We know that exchange continues up to the point where the value of the last unit earned equals the value of the last unit lost. Considering X as the given and Y as the obtained amount, $Wy \geq Wx$, where Wx is the lost value and Wy is the gained value from each unit. Exchange ends when hen the relative values are equal. Hence the exchange starts with higher relative values and ends at equal relative values. The first two questions are addressed in the following sections.

A) Living Conditions

In ancient civilizations, humans lived subsistence lives with no exchanges with others. Forests and mountains were the initial habitats where human used animals and trees. Subsequently, family life was formed. In this case, the relative values of things for people or families were formed in proportion to their exchange with the nature. Consider people living an island with three different natural locations. At first, people live in the lowest location of the island and are unaware of the other locations. Here, the value of products equals the substitution rate of the importance of the last unit lost and the importance gained through obtaining each unit of the natural product. Here, assuming rest as X and natural product as Y, marginal value of each unit of rest as Vx, and the marginal value of each unit of natural product as:

$$\frac{dY}{dX} \geq \frac{Vx}{Vy} \qquad (1)$$

Or if the last hour of work is dX and Wy is the obtained value,

$$Wy = dy,\ Vy \geq Wx = Vx \qquad (2)$$

Therefore, people would set the relative values of each unit of their life to reach maximum benefits in the island. They assign the hours of their lives to work and rest in order to reach benefit. As soon as they find better locations in the course of time, they migrate in order to reach more benefits. The additional benefits in the new locations are the result of new conditions and nature. But condition (1) still holds. Natural conditions provide people with additional benefits.

B) Communities and Markets

In the course of time, people realized that, through living together and dividing jobs, they can derive huge benefits even in the worst natural conditions. Therefore, they shifted from subsistence life to social life where people would assign hours of their life to activities and exchanges in order to obtain maximum benefits. In communities where people live together, two important conditions must hold:

1. The entrance condition to exchange and market must hold, i.e. the relative values of people in exchange must be more than the ones of the former lifestyle. This means that they lose less value and gain more value than before as the result of exchange.

2. They reach agreement in exchanges. The exchange rate is defined by the market in which the exchange takes place.

In this case, if the price (Px) equals the relative value of both sides of the exchange, the exchange ends. However, if the price is higher than the relative value for the person losing the product and lower than the relative value for the person obtaining the product, the exchange continues. Therefore, the condition for the formation of exchange and market for the product (x) with the relative value (Vx) is:

$Vx > 0 \mid Vx_a > Px, Vx_b < Px$, Market Condition (3)

$Vx < 0$, Non-market Condition (4)

$Vx = 0$, Indifference Condition of Market (5)

relative value in market has caused both sides of the exchange to exit the subsistence lifestyle and enter the market (and thus benefiting both sides). Now, where does this additional value come from?

4. Surplus Social Welfare

Additional value represents the conditions which benefit a person without imposing loss to the others. The benefit comes from the society and, in better words, the market. Adam Smith (1776) asserts that market benefits both sides of exchange. But from where does the market itself obtain this benefit? Marshal and Marks have attempted to respond to this matter. However the former has not given a convincing response and the latter has deviated from the matter. By using the *Theory of Surplus Welfare*, Marshal (1890) proves that there is extra benefit in this exchange: 'the satisfaction which he gets from its purchase generally exceeds that which he gives up in paying away its price; and he thus derives from the purchase a surplus of satisfaction. The excess of the price which he would be willing to pay rather than go without the thing, over that which he actually does pay, is the economic measure of this surplus satisfaction' (Marshall, 1890). 'This benefit, which he gets from purchasing at a low price things is part for which he would rather pay a high price than go without them may be called the benefit which he derives from his opportunities, or from his environment'. (Marshall, 1890).

What is the criterion which causes people to pay more price? Marshal (1890) responds to this at another point: 'The fact that he would just be induced to purchase one pound if the price were 20s proves that the total enjoyment or satisfaction which he derives from that pound is as great as that which he could obtain by spending 20s..' (Marshall, 1890).

Do opportunities and conditions originate in the possibility of substitution in Marshall's theory? If yes, then what is the relationship between the possibility of substitution and the social surplus which form the consumer's welfare surplus? Marshall does not explicitly address the origin of the consumer's welfare surplus. Marks related the surplus value to the labour. However, he does not consider a role for exchange and market (or the consumer) in the creation of surplus value. He has considered the surplus value only from the perspective of production and cost. In fact, he has understood the surplus value. However, since he has not found the reason for its appearance, he relates it to the labour, while the surplus value relates to all factors participating in the exchange both from the production and consumption. In other words, the surplus value belongs to the individuals engaged in the production, exchange, or consumption of the product. Although Adam Smith has almost reached the concept of value, as he considers it equal to the effort one can save in exchange or impose on others (without mentioning the surplus value): 'The real price of everything, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it. What everything 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.' (1776). If we consider 'the toil and trouble a person incurs' as the first value, and 'the toil and trouble he disposes of in exchange' as the second value, the problem is that he (Smith) has not explained the difference between the two. He further complicates the subject as he mentions that the two kinds of value are, in fact, equivalent to one another. Mises (1949) accepts the surplus value without explicitly referring to it. However, he questions the basis for the measurement of value. It is clear that Mises's denial of the valuation of objects originates in his incorrect understanding of the effect of exchange and value on the economic process and creation of value. Although he mentions the capacity of exchange in objects, he does not consider the role of exchange in value. In the following section, the ambiguities in the works of Adam Smith, Marks, and Mises will be addressed.

5. Formation of Value Creation

We conclude from the discussion above that, exchange is the result of difference between relative values of commodities. But what is the condition in which this value is created as the result of exchange? Or under what conditions is the value lost as result of the termination of exchange? How can one measure the relative values of commodities? I must say that value is created as the result of the difference between the needs and abilities of an individual compared to him and others. People change their locations and interactions with others to reach more benefits. Value of a product is the process of relation with oneself and others. In other words, the basis for value is the mutual relationship between one and oneself, and also the relationship between one and the others, i.e. interaction with self and others is the basis for creation of value and benefit for a person. We name this composite interaction '*the Economic Process*' which forms the basis for value creation (Rezaei, 2014). Therefore, the potential relative values cause the formation of the economic process, which in turn leads to value creation. Economic process is formed based on different needs and abilities of individuals and their awareness of the differences. If a person is given whatever he wishes immediately, neither value nor economy is created. Human beings have unlimited needs, but limited abilities and talents. However, the important point is that each person is gifted with the amount of ability more than his needs. Therefore, each individual uses his surplus abilities for the others and the community satisfies its needs through such cooperation. Therefore, the following principles exist in human society (Rezaee, 1995):

1. Human need is unlimited

2. There are no two identical individuals. Each individual has one or some different abilities compared to the others, and is able to achieve certain goals better than the others.

3. People have various tastes but are able to understand others' tastes and are willing to give them the extra amount after satisfaction of their own needs.

Division of labour is formed based on the above-mentioned principles. In other words, people assume roles in certain activities based on these principles. Value originates from the differences between abilities and needs. We shall name the difference in abilities and role-taking of people in economic activities the '*Relative Efficiency of Economic Factors*' for a certain product.

5.1. Relative Efficiency and Value

Value is the result of the relative efficiency of economic agents in a certain activity. Relative efficiency is formed due to different abilities of individuals, families, and firms in a certain activity (Rezaei, 1995). In other words, in a certain activity, a value gap is formed among the agents of production which becomes the source of additional value for the society. If the economic agents identify the gaps and perform the division of jobs accordingly prior to exchanging their products, they create additional values, from which both sides of the trade benefit. On the other hand, the main cause for the formation of exchange and market is the additional benefits of the economic process from production to exchange. Therefore, all agents participating in the economic process, from labour to business owners, marketing, and exchange, take part in the creation of the additional value. Labour, capital, land, credit and debt, management, market, and intermediate activities all contribute to the additional value. Considering the relative efficiency of economic agents in each single activity, three types of value may be identified, i.e., each product is of a certain kind of value from the viewpoint of one who has acquired or produced it, and it is of a different kind of value to the one who wants to acquire it. Society also gives it a certain credit which is the market price. These values are the following:

5.2. Value and the Economic Process

In every economic activity including production and exchange, three types of value are created:

A) Compensation Value

This value is attributed to the product by the individual who has made or acquired it. In other words, if the person wants to take it for himself, he ascribes to it the value equal to the amount of cost he has incurred for it (The first value of Adam Smith). The logic behind this value is that the person is not willing to ascribe to a product more or less value than the amount of trouble he has incurred for it. We call this amount which equals the lost value, 'the compensation value'. In fact, it raises the question, 'How much would a person value the product he has produced when he puts it for sale?' The answer is clear; he would value it the amount of trouble he has undergone to acquire or make it. If this value is less than the amount of value that market assigns to the product, no exchange occurs.

B) Opportunity Value

When an individual demands a product from another individual, he (the first person) ascribes a different form of value to the product. In his viewpoint, the value of the product he demands for is equal to the value of the opportunity he has found to skip allocating his resources to (re-)making the product (similar to the second value of Adam Smith). We shall name this value the 'opportunity income'. In other words, if a person leaves the production of a product to others, he relieves himself of the trouble of (re-)producing it, and thus he gains the opportunity to produce another product which he finds more efficient. In this case, the value he attributes to the consumed product is equal to the value he obtains by releasing (or saving) his resources from producing the product. Therefore, the demand of every product depends on its importance in releasing the resources of the purchaser (the value of the opportunity gained by not re-producing the product). If the demander can produce the product with lower cost, he will not enter the trade and there will be no market.

C) Market Value

The value people receive or pay as the result of exchange in the market is the market value of the products. This type of value is between the compensation and opportunity values. Let us assume two persons (A and B) producing two products (X and Y) and exchange them. Person A produces product X and leaves the production of Y to person B. Person B is in charge of producing Y and leaves the production of X to person A. In this case, both individuals incur costs of production and acquire incomes from sale. As a result of exchange, not only the costs are compensated, but also the two sides will acquire incomes more than costs due to correct allocation of resources to the products. We may now write the compensation value and opportunity value for the two persons. P1x and P1y represent compensation values for persons A and B on products X and Y, respectively, i.e. the sellers consider this value for their product, and it equals the least price they are willing to exchange them for. P3x and P3y represent opportunity values (incomes) that person X and Y acquire by not producing products B and A respectively. In other words, they are the demanding price of X and Y for the demanders of the products, i.e., the maximum value they are willing to give up for the unit of the products. If we assume the effect of demand on the income of the demander as follows,

$(\partial Y/\partial X)$: Effect of the demand on X on the income of person B

$(\partial X/\partial Y)$: Effect of the demand on Y on the income of person A

$(\partial Y/\partial X) = P3x$ & $(\partial X/\partial Y) = P3y$

We will have the following equations,

$$(\partial Y/\partial X) = (\partial Y/\partial N).\ (\partial N/\partial X) \tag{5}$$

$$(\partial X/\partial Y) = (\partial X/\partial N).\ (\partial N/\partial Y) \tag{6}$$

Where equations (3) and (4) are the multiplication of the two terms of person's productivity $(\partial X/\partial N)$, $(\partial Y/\partial N)$ by the social productivity coefficients $(\partial N/\partial X)$ and $(\partial N/\partial Y)$ which show the role-taking and the release of resources by using the abilities of others.

5.3. Factors influencing relative productivity and efficiency

Both coefficients are influenced by factors such as knowledge, skill, technology, and information. On the other hand, they can influence compensation values. The effects of these factors are introduced through concepts such as management, capital, labour, and competitiveness. Therefore, the above-mentioned factors can add to the difference between the compensation and opportunity values. The more the difference between compensation values, the more benefits are acquired in exchange and market. Therefore, improving certain factors influencing compensation, opportunity and market values may lead to the rise of additional value benefiting the traders in the market. Entrepreneurship is the activity which can create one or some value-creating factors in the economic process (Rezaie, 2014).

5.4. Social Benefits and Price

Let us go back to the example above. Two persons A and B, each produces a single unit of products X and Y and sells it to the other person. Exchanging products at market price will lead to the distribution of social benefits between the traders. How the prices are assigned also plays an important role in both personal and social benefits. As the prices approach equilibrium prices, more social benefits are produced and personal benefits from products are distributed more fairly. Surplus product and social value are shown in Table 1.

Table 1. Personal and Social Benefits

Profit and Social Benefits = Total Benefits	Y	X	Commodity/Agents
Profit from X and Benefits from Y	P3Y	P1X	A
	PY	PX	Market
Profit and Benefits of B from Y & X	P1Y	P3X	B
dX + dY	dY= dY1 + dY2	dX= dX1 + dX2	Surplus Product

5.5. The Coefficient of Production Income and Utility

Since importance and benefit include both consumption and exchange values, the compensation and opportunity values of each product are equivalent to both values for the traders. This is due to the fact that the gained or lost values for every unit of the product are both subjective (utility with happiness or pain and trouble) and objective (cost and income). Therefore, both types of value are used in the calculation of compensation and opportunity values. We call the relationship between these two values the coefficient of transformation from the consumption value to the exchange value. This includes the monetary value of each unit of utility and we show it with Ω. Therefore, the value of benefit (lost or gained) of each unit of the product (e.g. X) is the sum of subjective and objective values attributed to the product:

$$V1x = P1x + \Omega \times Ux1 \;\&\; V3x = P3x + \Omega \times Ux3 \quad (7)$$

P denotes the nominal value and U is the consumption value or the utility of the product X. V is the total value and benefit of each unit. Hence, the nominal value of utility can be calculated based on the monetary value by using the transformation coefficient Ω. In the simplest form, this means that each unit of rest has certain amount of value.

5.6. The Economic Process and Market

We concluded from the discussion on relative efficiency that releasing the resources of an economic unit from an activity and leaving it to the other unit leads to opportunity income. On the other hand, allocating resources to another activity will lead to more income. We name these actions of the economic unit '*the economic process*' (Rezaei, 2014) Economic process creates potential values in the society. Economic process is influenced by the social and political conditions of the society. People's awareness of each other and their relationships are effective in the formation of the process. Without market and exchange, there will be no economic process. Also, no market is formed without potential relative values.

5.7. Market

Market is the place where surplus social values are created. Potential relative values are the main source of social surplus. Relative values are, in turn, created by relative efficiency of production factors in certain activities corresponding to certain markets. Potential markets are the product of the relative efficiency of production factors. Therefore, markets are of two kinds: (1) Markets that have not reached equilibrium. Relative values are the most important signs of these markets, (2) Markets that have reached equilibrium. These markets have uniform price and equal relative values. In such markets, formation of a new market or expansion of the existing market requires change in relative efficiencies.

6. The Core Theory of Economics

Edgeworth (1881) has emphasized on the concept of the core. In his book 'Mathematical Physics' he has proposed a core theory or the field of competition between value and price, 'The first principle of Economics is that every agent is actuated only by self-interest. The workings of this principle may be viewed under two aspects, according as the agent acts without, or with, the consent of others affected by his actions. In wide senses, the first species of action may be called war; the second, contract' (Edgeworth, 1881). In continuation, he attempts to clarify his implication by exemplifying fencing and auction: 'A general, or fencer, making moves, a dealer lowering price, without consent of rival. A set of co-operatives (labourers, capitalists, manager) agreed nem. con. to distribute the joint-produce by assigning to each a certain function of his sacrifice. The articles of contract are in this case are the amount of sacrifice to be made by each, and the principle of distribution. Is it peace or war?' asks the lover of ' Maud,' of economic competition, and answers hastily: It is both, pax or pact between contractors during contract, war, when some of the contractors without the consent of others re-contract. Thus an auctioneer having been in contact with the last bidder (to sell at such a price if no higher bid) re-contracts with a higher bidder. So a landlord on expiry of lease re-contracts, it may be, with a new tenant' (Edgeworth, 1881). Subsequently, he defines the core as the field of competition: 'The field of competition with reference to a contract, or contracts, under consideration consists of all the individuals who are willing and able to recontract about the articles under consideration.

Thus in an auction the field consists of the auctioneer and all who are effectively willing to give a higher price than the last bid. In this case, as the transaction reaches determination, the field continually diminishes and ultimately vanishes' (Edgeworth, 1881).

Having well understood the core and the field of competition, Edgeworth does not explain the causes of its formation. He has mentioned the cooperation and sacrifice among the agents to explain the formation of the core. We assume the belongings of every individual to represent compensation value and their interest from the exchange and market surplus value, to represent his social right and share. In this case, what is sacrifice? If any individual in the market pays to others an amount from his own, this means that some people are benefiting from others' loss, and since this is not logical, it cannot be the basis for analyzing human behavior. If sacrifice means that each individual gives up a certain amount from the society or market's share, the amount of this share must first be priced. This means that people must sacrifice a certain amount of their social share. What is the meaning of social benefits here? Social benefits result from division of labour and the relative social efficiency of factors creating additional value in certain products. Therefore, social benefits form as a result of cooperation and division of labour, and they are distributed among the traders as a result of exchange and pricing. Therefore, the field of competition (the core) is the result of relative efficiency of production factors in a certain product or commodity. Although the causes for the formation of the core may be explained through the theory of relative efficiency of production factors in a certain product, the real cause is the distance between the opportunity incomes and compensation values. Such core exists in every exchange to set the price and form the exchange and distribute social benefits between the sides. The vaster the cores, the more benefits the society obtains.

7. Conclusions

Value is the result of relative efficiency of production factors in a certain economic activity. Relative efficiency appears as the result of various capabilities in individuals, families, or firms in a certain activity. This means that a value gap is formed, which later becomes the source of additional value for the society. If economic agents can identify these gaps and perform the division of labour and exchange based on the gaps, the society will benefit both sides of the exchange. Therefore:

1. The main cause of the formation of exchange and market is the difference between the relative efficiency of factors in certain economic activities.
2. Value and additional values are created through the economic process.

The starting point of the economic process is the potential relative values. Relative values form as the result of relative efficiency of production factors in economic activities. The theory of value also addresses the formation and expansion of market. New markets form as the result of innovation in production or discovery of new demanders, and they maintain their capacity for traders as long as the relative values are unequal. The market changes when economic processes change; the market may vanish or form new markets. Therefore, the social surplus or the surplus value belongs to all individuals engaged in the economic process. Worker, investor, consumer, and dealer all participate in the creation of additional value. Therefore, it can be said that value is the result of a socio-economic process.

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