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Definition of Economics in Retrospective: Two Epistemological Tensions That Explain the Change of the Study Object in Economics

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Abstract: Throughout history, schools of economic thought have defined political economy—or economics—and its object of study in multiple ways. This paper reflects on the definitions of economics by schools of economic thought and also proposes the concepts of value and scarcity as key concepts to explain the differences between them. The most important findings of the paper are: (a) the ontological and epistemological characteristics of the concept of value and scarcity have shaped the definitions of economics; (b) the boundaries of the study object of economics have been expanded since today's mainstream economics deals with multiple topics as diverse as crime, education, development, health, etc. However, the methodological tools used in mainstream economics have been narrowed since approaches such as the philosophical, ethical, historical, and institutional approaches have been left behind; (c) the part of reality that mainstream economics can grasp have left behind important issues of the contemporary world, such as gender, social, and environmental issues. A clear understanding of the scope and boundaries of economics could help to define more realistic research questions for economic science, and it would help to define new economic paradigms that address the contemporary issues.

Keywords: value; scarcity; definition of economics; history of economic thought; production; distribution and consumption

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1. Introduction

Probably one of the first things students learn when studying a science is its definition. In most textbooks, it is possible to find the definition of the science in the first pages. The aim is to teach the students things, such as what the science is about, what its main principles are, and how it differs from other scientific fields. The purpose is to introduce students to the subject and, to that end, delimit the research domain of the area [1]. This is a static mode of conceiving the definition of a science and its research domain, in the sense that it seems as if the definition is the first thing to be established. Contrariwise, as in other disciplines, the historical development of economic thought has been mainly focused on first setting some lines of research, followed by some discoveries and general principles, and finally, the definition of what economics is [2,3].

The definition of economics has undergone numerous changes throughout the history of economic thought [4]. The Classical School of Political Economy (CSPE)—regardless of internal differences in their theoretical approaches—considers the main study object of economics the production of wealth, while in contemporary economics, it is the allocation of scarce resources [5,6]. In recent years, scholars such as [7,8] have written on the lack of a unanimous definition of economics and how the Robbins one became widely accepted; [9,10] have also written extensively on the historical origins of economics, using history of economic thought and philology; Walter [11] examined how the CSPE was a discourse style that bears little resemblance to modern economics today and how some economists retroactively project contemporary economics into the past, considering that "political economy" is still a label that many economists still fight on its definition [12]. Thus, economists are far from having unanimous reflections about the definition of economics [13]. In this sense, the study object of economics could be many things, for example, the production and distribution of wealth, the maximization of utility, the allocation of scarce resources, the psychological patterns of consumption, international trade, taxes, treasury, etc.

According to Backhouse and Medema [8], the reasons related to the lack of agreement on the definition of economics are manifold. First, the definition of economics is seen only as a tool to introduce students to the science, but it does not concern practicing economists. Second, the subject of economics is too broad to be useful to define in a short definition. Finally, the definition of economics does not really matter since almost all contemporary economics textbooks are mainstream and they have fairly similar definitions. Despite this, it is possible to argue that the definitions of economics are important for two reasons: (a) definitions of economics help convey what economists consider a legitimate problem to be addressed by economic analysis; (b) definitions of economics suggest what methods, approaches, and techniques economists consider appropriate for performing economics.

Schools of economic thought have adopted several key concepts to formulate their economic theories and thus their definitions of economics, for instance, the concept of value and the concept of scarcity. Theories of value have been the centerpiece of every major school of economic thought, from the CSPE to the Neoclassical School of Economics (NSE) [14]. Economists have widely acknowledged the importance and merits of considering exchange value as the foundation for understanding economic dynamics [15,16]. Despite this unity, even today there are—on the conceptual ground of price and value—still open controversial discussions between the schools of economic thought [17] on defining what among marginal utility, cost of production, or labor time may explain the exchange value of goods and services or what the relations between use value and exchange value are (see for example, [18,19]).

However, even if these controversies and disagreements continue up to today, the theory of value with its nuanced analytical and conceptual background still plays a crucial role in understanding the complexity of economic phenomena [20]. Firstly, the coexistence, assumption, and comparison of different conceptualizations of the theory of value imply the emersion of different study objects that animate economic science. For example, assuming a cost-of-production value theory might lead to understanding the production and distribution of resources and goods as the main problem of economics. Conversely, assuming a subjective value theory based on the marginal utility principle might lead to understanding the allocation of scarce resources as the main problem of economics. Secondly, it is important to underline that—considering the scenario of the public policies—practical implications can change based on the theory of value latently adopted. For instance, as pointed out by [21], marginalist utility theory can lead to strategies of "price nature", whereas the Marxian theory of value can result in strategies for overcoming the system.

Another important concept in the history of economic thought is the one regarding scarcity. The concept of scarcity plays a crucial role within the NSE since only scarce resources are objects of the study of economics. According to Daoud [22], the notion of universal scarcity, in the form of the scarcity postulate, represents a main axis in the contemporary NSE. In this sense, the NSE defines economics as the study of the problem of the satisfaction of multiple needs and wants of the people from scarce resources. This definition can be found in current economic textbooks; amongst others, it is cited in [23] (p. 4) as "Economics is the study of how society manages its scarce resources".

With this background, the article attempts to analyze the evolution of the definition of economics within the framework of the (i) CSPE, (ii) Marginalist School of Economics (MSE), (iii) Marshallian synthesis of economics (MSHE), and (iv) Robbins' definition of economics. The decision to choose these schools of economic thought is, first, because the

CSPE started a systematic study of the economy as a phenomenon of study. Before the CSPE, the study of the economy was allocated inside political and moral studies, where scholars focused their research on answering ethical and moral questions, such as, what is the fair transaction price of different goods and services? Or is charging interest for granting loans morally questionable? It was only in the 18th century that intellectuals began to abandon ethical–moral questions, to focus more on the theoretical aspect to explain, through more structured theories, the concept of price. In this sense, some of the questions that become relevant in this century were: what are prices? What are the factors that determine prices? What are the causes of price variations? Among others. Second, this article attempts to analyze the changes in the object of the study of economics within the mainstream economic tradition that derives from the CSPE, MSE, MSHE, and Robbins' approach. Discussing deeply the distinction between mainstream economics and heterodox economics is not the scope of this paper; for an analysis of this long debate with other approaches, for example, the sociological approach, see [24–28]. In this article, mainstream economics tradition is understood as the neoclassical economic approach that focuses the research on market equilibrium and maximization of consumers' utility and enterprises' profits [25], in opposition to heterodox approaches that question this research focus arguing that the research problem of economics is wider than that and involve topics such as social economic structures, power market, social economic inequalities, among others. Including heterodox schools such as Marxism, institutionalism, ecological economics, or feminist economics would not be possible in this paper for the extent that a project like this would require. Furthermore, from this understanding, it proposes the tension between objective and subjective value and scarcity and abundance to explain the changes in the definition of economics in the history of economic thought. Accordingly, this article is guided by the following research question: what explains the different definitions of economics proposed by the selected economic schools?

In answering this question, the article is structured as follows: from sections two to four, the analysis is focused on the definition of economics formulated by the CSPE, MSE, and MSHE; The fifth section examines Robbins' definition of economics; then, in section six, the article discusses the new concepts introduced in the mainstream definition of economics, such as choice and rationality. Finally, section seven explores the possible perspectives for a new definition of economics.

2. Classical School of Political Economy and the Focus on Production

In his book, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Adam Smith did not explicitly state a definition of political economy; however, it is possible to argue that he understood it as a science that studies how nations get rich [29]. In regard to this, he states that political economy goals are:

> "[. . .] first, to provide a plentiful revenue or subsistence for the people, or more properly to enable them to provide such a revenue or subsistence for themselves; and secondly, to supply the state or commonwealth with a revenue sufficient for the public services. It proposes to enrich both the people and the sovereign" [30] (p. 428).

The theorization of Smith is based on two main concepts, the division of labor and the expansion of the market [31]. Smith [30] describes the division of labor as the fragmentation of a production activity into several elemental tasks implemented by different people according to their skill, knowledge, and physical strengths. This implies specialization in workers' tasks, which increases productivity. Smith had a strong interest in the positive effects of specialization on "productivity and [. . .] material development" [32] (p. 17) and attributed to it almost all the progress and prosperity of the commercial age [33]. The intrinsic mechanism of this trajectory is powered by the fact that the increase in productivity generates surpluses since workers produce more than what is necessary for subsistence consumption. Finally, this surplus is traded in the market, which can be defined as the situation in which two or more people exchange goods or services at a certain time and place. In turn, the market defines and limits the division of labor, because if there is no market to exchange some goods or services, there is no reason to specialize in their production. Consistently, workers have no incentive to increase the division of labor, therefore productivity would not improve; on this basis, Smith explained why societies become mercantile societies [34]. The importance for Smith of the concept of exchange value or price lies in the fact that it allows this exchange of surplus production.

Smith, to explain both, the phenomenon of the production of goods and the concept of exchange value, postulates a theory of production costs. This theory is based on the notion that value is objective, which means it is intrinsic to goods and that it can be measured by labor wages, capital profits, and land rent [33]. Nevertheless, he argues that both capital and land can be reduced to labor since building machinery or tools and making the land productive requires labor. Therefore, the notion of objective value—labor required to produce a good—is the ultimate philosophical principle on which Smith supports his theorization and his definition of the economy, whose main axis is the production of wealth.

Mill [2] criticized this draft of Smith's definition of political economy, arguing that he confuses the concepts of science and art. For Mill, science is a collection of truths and therefore exposes facts; thus, its object is to understand a phenomenon and discover its laws; while art is a set of rules or criteria of conduct and therefore designs standards, so its object is to propose an end and seek the necessary means to achieve it. Consequently, Mill's position is political economy if it claims to be a science must not deal with practical rules for getting rich, hence for him, Smith's definition is wrong. Mill considers that science is the basis for art, or in other words, any norm or practical rule must be based on the understanding of a phenomenon and therefore on its laws. According to Mill, although it is true that the purpose of political economy as a science is not to design a set of practical rules for the generation of wealth, it must serve as a basis for it.

Ricardo [35] in the prologue of his book *Principles of Political Economy and Taxation* outlines a definition of political economy. He follows the line drawn by Smith and establishes the production of wealth as one of the main axes of research in political economy. Nevertheless, he also adds the distribution of wealth as another phenomenon to be studied by political economy [36]. Considering both phenomena, Ricardo exposes the following definition of political economy:

> "The produce of the earth—all that is derived from its surface by the united application of labor, machinery, and capital, is divided among three classes of the community; namely, the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the laborers by whose industry it is cultivated."..."To determine the laws which regulate this distribution, is the principal problem in Political Economy [...]" [35] (p. 5).

Ricardo proposes, as Smith, a theory of production costs to explain the production and distribution of wealth [36]. He argues that necessary to produce a good are labor, capital, and land; therefore, what explains the phenomenon of production are these three components. At the same time, the theory of production costs also explained the distribution of wealth since wages paid for labor are paid to workers, rent paid for the use of land is paid to landowners, and profits are paid to capitalists. According to Ricardo, all the production of a country is distributed among these three social classes. Finally, Ricardo reduces the theory of production cost to a theory of embodied labor that reduces capital and rent to necessary labor to produce capital and make productive land.

Say [37] (p. 9) adds consumption to the definition of political economy: "[...] political economy, which unfolds the manner in which wealth is produced, distributed and consumed".

Say's definition was criticized by Mill [2], who said that political economy should not deal with consumption, it should only deal with distribution and production. Mill argued that at the time he was writing, there were no known laws of consumption—laws relating to human pleasure—nor a science whose object of study were such laws. Economists of the CSPE—including Say—treated consumption in relation to the production and distribution of wealth at the national consumption, not as individual consumption [38]. According to Mill, the topics covered by the consumption sections of the political economy books of the first half of the 19th century were: the distinction between productive and unproductive consumption and questions related to taxation. Therefore, Mill argues that these issues must be included within production and distribution.

Building upon these comments against his predecessors, Mill [2] (p. 99) coins the following definition of political economy:

> "The science which traces the laws of such of the phenomena of society as arise from the combined operations of mankind of the production of wealth, in so far as those phenomena are not modified by the pursuit of any other object."

It can be seen from this definition that the main object of study of the CSPE was production and distribution. The idea of intrinsic labor required to produce goods was predominant in this school and helped to keep the focus on production. In turn, CSPE thought the scarcity as an empirical problem that could be overcome through work. Finally, the phenomena of production and distribution were social phenomena since they were based on a theory of production costs and therefore on social classes.

3. Marginalist School of Economics and the Focus on Maximization

The forerunners of the MSE, Jevons, Menger, and Walras, defined economics differently than the economists of the CSPE. They shifted the focus of political economy from the production and distribution of wealth to the laws of human behavior that drive individual consumption [8]. Jevons, who was chronologically the first of the three to publish his book entitled *The Theory of Political Economy* in 1871, defines economics as follows:

> "Pleasure and pain are undoubtedly the ultimate objects of the Calculus of Economics. To satisfy our wants to the utmost with the least effort- to procure the greatest amount of what is desirable at the expense of the least that is undesirable- in other words, to maximize pleasure, is the problem of Economics" [39] (p. 37).

Jevons develops a theory of consumption based on a theory of utility, which in turn is based on the notion of subjective value. Jevons argued that the value of goods derives from the utility they provide to people, that is, if one person wants or needs a good more than another, they will be willing to pay a higher price for it. In this way, the notion of subjective value is based on psychological elements since they come from the desires and needs of the people. The key law that supports the theory of utility of Jevons, Walras, and Menger is the law of marginal utility, which states that the degree of utility varies with the number of goods [40]. In other words, the level of utility decreases as the quantity of goods increases and vice versa. The logic behind this is that the more a need is covered, the more its usefulness is lost, an additional amount of the good that satisfies this need.

Building upon the fact that the theory of utility is based on psychological elements and the principle of marginal utility, it follows that in the MSE, scarcity is a theoretical consequence. It is understood as a theoretical consequence when scarcity can be derived as a logical consequence of a set of axioms [22]. The reason behind this argumentation is that scarcity derives from the quantitative relationship where needs and wants are more than the goods that satisfy them [41]. Nonetheless, building upon this reflection, it is worth asking how do Menger, Jevons, and Walras understand the nature of needs and wants? For them, the more societies advance, the better means of production they have, thus the societies have more capacity to satisfy basic needs and wants, but also in these advanced societies, more sophisticated needs and wants are generated. In this sense, people always need "something", therefore scarcity is derived from an axiom of human nature.

Walras [42] starts with a detailed analysis of the definition and the object of study of political economy in the first section of his book *Elements of pure political economy*. He makes the same criticism that Mill made of Smith's definition; he argues that Smith defined the economy by its applications, that is, by rules and regulations for countries and people to achieve wealth. However, for Walras, pure political economy is the search for truths ("laws") that explain facts about the phenomenon of price determination under a hypothetical regime of perfect competition, regardless of the advantageous or harmful applications that these laws may have. Walras uses the following illustration to exemplify his argument:

> "To say, in effect, that the objective of economics is to provide a plentiful income for the people and to furnish the state with an adequate income is like saying that the object of geometry is to build solid houses and that the aim of astronomy is to navigate the seas safely. It is, in a word, to define a science in terms of its applications" [42] (p. 5–6).

He adds a second criticism to the previous one. He argues that the problem of providing abundant income to the people is a problem of a different order than that of providing income to the State. The first is a practical problem since political economy must show the conditions to produce an abundant social income. The second problem is different; it is mainly related to moral justice since providing sufficient or insufficient income to the State implies the decision of how much taxes to collect and who to tax. Thus, for Walras, the definition of Smith treats as equal two problems with different objects of study.

Walras also rejects Say's definition of political economy. He argues that Say's definition presents economics only as a natural science, in the specific sense that is independent of human will. To overcome the dilemma of whether economics is an art or a natural science, Walras proposes that political economy should be separated into three parts: natural science, moral science, and art.

Accordingly, he points out that science consists of the knowledge of certain phenomena or relationships observed or discovered; while art consists of a series of rules or precepts that must be followed [42]. Therefore, science observes facts and art prescribes, advises, and directs acts. Walras's justification for establishing this distinction is that the phenomena in the world can be classified into two categories, the first are natural phenomena and the second are phenomena that derive from the human will, which is a cognitive free force. Phenomena of the first type are developed in nature and phenomena of the second type are developed in humanity. In this way, natural phenomena can be identified, verified, and explained, while human phenomena, although they can also be identified, verified, and explained, can additionally be controlled; this is the reason why for Walras, only art can prescribe, advise, or direct. This is possible because natural phenomena, not having a will, cannot happen in a different way than their laws dictate, while human phenomena, since people have a will, can happen in many ways. This reasoning was finally used by Walras to establish the distinction between pure natural science and moral science, where the object of the first is natural phenomena and the object of the second is human phenomena.

Walras identifies two types of relationships: the relationships between people and those between people and things. In the first type, what is in relation is the will of the people, so the aim of the relationship is the mutual coordination of the wills. In the second type, the will of the people is directed over things that lack it, and therefore, things are subordinated to the will of the people. Walras calls institutions to the set of the first type of relations, and he points out that the theory of institutions is a moral or ethical science. He calls industry the set of the second type of relations, and for him, the theory of industry is an applied science or art.

Walras argued that the economy had three objects of study with different characteristics and therefore could be divided into three areas: the theory of value and exchange, which belongs to the category of pure science; the theory of industry or production of wealth, which belongs to the category of applied science or art; and the theory of distribution regarding the institutions, which belongs to the category of moral or ethical science. Following these distinctions, his treatise was divided into three parts: elements of pure political economy; elements of applied political economy; and elements of social political economy.

Building upon this, Walras proposes his definition of economics:

"Economic theory is essentially the theory of the determination of price in a hypothetical regime of perfectly free competition. The ensemble of all things, material or immaterial, on which a price can be set because they are scarce, that is to say, are both useful and limited in quantity, constitutes social wealth. That is why economic theory is also the theory of social wealth" [42] (p. 13).

Walras—as Jevons did—grounded his theory of price determination on a theory of consumption, based respectively on a theory of utility, whose most important principle is the principle of marginal utility. This implies that those people who want or need an additional good will be willing to pay a higher price for it. Accordingly, the philosophical notion on which the Walrasian theory is founded is the notion of subjective value. Moreover, as the same definition expresses it, goods are scarce by axiom. The central point is that goods are useful depending on the wishes and needs people have; as a result, the usefulness will depend on individual psychological considerations. The limited quantity of a good will also depend on it, since any person could say, for example, that they want an unlimited quantity of automobiles; in this sense, there will always be a shortage of them.

Menger agrees with Walras and Jevons in the idea that needs and wants are the base of the exchange value, but he is even more strict by arguing that only scarce goods could be considered economic goods. In this way, Menger defines economics as:

"The complex of human activities directed to these four objectives[1] is called economizing, and goods standing in the quantitative relationship involved in the preceding discussion[2] are the exclusive objects of it. These goods are economic goods [. . .]" [43] (p. 96).

Moreover, he adds:

"For the end of the economy is not the physical augmentation of goods but always the fullest possible satisfaction of human needs" [43] (p. 190).

It is important to clarify that this section intends not to blur differences in marginalist thought under the homogenizing umbrella of the "Marginal Revolution". As Blaug [44] specifically underlined, to speak of a marginal revolution is somewhat misleading. In the 1970s, Jaffé [45] regretted that Menger, Jevons, and Walras' contributions to economic analysis had been grossly misrepresented by the widely used practice of grouping them under one caption; according to him, differences that characterize their thoughts, especially regarding the understanding of marginal utility, are of interest; "the passage of time has revealed more important [these differences] than anything they [the authors] may have had in common" [45] (p. 511). Even scholars, such as Van't Klooster [46], point out that there are controversies about whether Menger should be considered a marginalist or not. Here, the intention was to focus on how the research project of the forerunners of the MSE was aimed at individuating human behavior laws for explaining individual consumption. To do that, they shifted the concept of the CSPE from objective value to subjective value and from the possibility of empirical abundance to a scarce situation.

4. Marshallian Synthesis and the Scissor Analogy

Focusing the attention on the Marshallian synthesis, it is possible to say that Marshall integrates the cost of production theory of the CSPE and the theory of utility of the MSE, hence describing economics as:

"A study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing. Thus, it is, on the one side, a study of wealth; and on the other, and more important side, a part of the study of man" [47] (p. 2).

Moreover, a few pages later, Marshall clarifies the above definition by adding:

"We have seen that economics is, on the one side, a Science of Wealth; and, on the other, that part of the Social Science of man's action in society, which deals with

> these efforts to satisfy his wants, in so far as the efforts and wants are capable of being measured in terms of wealth, or its general representative i.e., money. We shall be occupied during the greater part of this volume with these wants and efforts; and with the causes by which the prices that measure the wants are brought into equilibrium with those that measure the efforts. For this purpose, we shall have to study in Book III wealth in relation to the diversity of man's wants, which it must satisfy; and in Book IV wealth in relation to the diversity of man's efforts by which it is produced" [47] (p. 26).

As can be seen from the above, Marshall's definition contemplates two areas for the study of economic phenomena. On one hand, the study of wealth about desires, where he took the theory of the marginal utility of the MSE to design the theory of demand [48]. On the other hand, in the study of wealth about efforts, he took the cost theory of production of the CSPE to build the theory of supply [49,50]. Building upon these theories, he developed a theory of prices and exchange based on the interaction between supply and demand [36]. According to him, supply had a greater effect on prices in the long term, and demand had a greater influence in the short term, while in intermediate terms, both influenced prices.

Marshall formulated the concept of exchange value starting neither from the cost theory of production nor from the theory of marginal utility, rather, he exposes it as a derivative of the relationship between supply and demand [36]. As a result, for him, it would be incorrect that subjective valuations determine the exchange value since what they determine is only the demand price. Likewise, it would be incorrect that production costs determine the exchange value since they only determine the supply price. Purely, the relationship between the demand price and the supply price, as well as the quantity demanded and the quantity supplied, determines the exchange value. The controversies between objective and subjective value were dissolved in Marshall's theory with this ecumenical solution. Moreover, the objects of study of the CSPE and MSE were integrated; therefore, production, distribution, and consumption were included within the sphere of economic analysis.

Another important aspect of Marshallian synthesis is that it produces an ambiguity in the concept of scarcity. For Marshall, needs are varied in type and number and grow as societies develop due to people's desire for variety and distinction [51]. According to him, this happens because people in civilized societies have their basic needs satisfied, therefore other types of needs arise. This leads people to want not only more goods that satisfy them, but also a greater variety of goods from which to choose. In this sense, Marshall, like marginalists, argues that the basis of consumption decisions is the satisfaction of needs and desires. This supports a convergence with the marginalists' theoretical conclusions. In fact, on the demand side, scarcity is a theoretical consequence arising from the set of assumptions made to build the theory of utility [52]; on the supply side, the situation is different because needs and desires can be satisfied through the development of new activities and production methods. In this sense, he rescues the notion of empirical scarcity of the CSPE, since through the development of industry, it is possible to overcome the scarcity condition of society [52]. Moreover, the concept of scarcity plays a key role in the mechanism of supply and demand proposed by the Marshallian theory. However, considering the above, scarcity is empirically testable since supply may be greater than, equal to, or less than demand. The important point is that in terms of the relationship between supply and demand, scarcity or abundance are situations that have an empirical manifestation.

5. Lionel Robbins and the Focus on Scarcity

Shifting the analytical focus on Robbins's thought, he mainly develops his analysis regarding the definition and object of study of the economy in his essay published in 1932, entitled *Essay on the Nature and Meaning of Economic Science*. This essay begins by criticizing materialist definitions of economics, such as Marshall's definition. Materialist definitions hold that economics is the science that studies the material well-being of humanity; it means it studies the production of those material goods that satisfy human needs [53]. Robbins argues that a valid definition should have the ability to accurately describe the object of study of the main generalizations of the science. Accordingly, materialist definitions do not consider important generalizations that have been made in economics, such as the theory of wages or money. For instance, the generalizations discovered in the theory of wages apply to those workers who produce material goods and services.

After this critique, Robbins coins his definition of economics; he postulates a hypothetical case of an isolated man who needs to divide his time between production of goods and leisure. Robbins argues that to establish this division, four conditions must be met: (i) the isolated man needs material goods and leisure; (ii) he does not have enough material goods and leisure to fully satisfy his needs; (iii) he can use his time to increase the production of material goods or to prolong his leisure; and (iv) his needs for material goods and leisure are diverse, in the sense that he requires more than one material good and more than one leisure activity. These conditions make people face choices. Robbins points out that when people decide to allocate an amount of means to achieve a specific end, they are leaving another end unfulfilled. According to him, this is the basis of economic activity, therefore economics can be defined as follows:

> "The economist studies the disposal of scarce means. [...] Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses" [54] (p. 15).

Robbins' definition recovers the concept of subjective value and scarcity as a theoretical consequence of the MSE [52]. He argues that people establish a hierarchy among their needs and then choose which one they want to and can satisfy. Following these conceptualizations, the definition of economics can cover the entire field without describing it, because it is not the materiality that gives goods an economic status, but rather their relationship with individual needs. Consequently,

> "Scarcity of the means to satisfy given ends is an almost ubiquitous condition of human behavior" [54] (p. 15).

Despite Robbins's attempt to describe accurately the main generalizations of economics, Robbins' definition received criticism both for being too broad and for being too narrow. According to Backhouse and Medema [8], it was too broad as it failed to differentiate economics from other social sciences, while it was too narrow since it was heavily oriented towards theory, leaving little space for empirical analysis, history, institutions, and ethics. Probably these critics came from the epoch in which Robbins wrote his essay. In the first half of the 20th century in England, Marshall's economic theory remained the dominant theory, and in the United States of America, institutional economics was the mainstream discussion within contemporary economic thought [55].

In the early years of post-World War II, the scientific literature in economics offered at least four definitions of economics [8]: the first—based on Jacob Viner's statements—described the economic science as what economists do; the second one was instead grounded on the Robbins' thought, with a focus on the concept of scarcity; the third one built upon the discussion on wealth; finally, the fourth one considered rationality as the main subject of economics. Nevertheless, after those years, a gradual movement towards a broader acceptance of Robbins' definition started to emerge, as a reflection of a tendency through which economics was becoming narrower and more technical. For this reason, by the end of the 1960s, with the development of mathematical methods in economics and the adoption of the axiomatic approach, Robbins' definition was more widely accepted [55].

6. New Tensions in the Mainstream Definition of Economics

In line with Robbins' definition, the concepts of individual choice and rationality were developed. The idea that scarcity implies choices does not necessarily indicate that they must be rational [56]. Nevertheless, it is widely held in mainstream economics that people make rational choices [57,58]. Even the one which criticizes the idea of rationality does not reject rationality completely but proposes bounded rationality as a replacement concept.

Therefore, Robbins' idea of scarcity helped to identify economics as a science based on the rational maximization of behavior [8]. Nonetheless, this association between scarcity, choices, and rationality is not always necessary. In this respect, Friedman [59] specifies that economics attempts to observe and describe human behavior regardless of the cause of that behavior. This is to say that, for him, rationality was only a hypothesis for predicting people's behavior. The association of these three concepts has created a movement towards a psychology of choice as the centerpiece of economic analysis. Two examples of this are the development of game theory and neuroeconomics as branches of economics [60,61].

Understanding economics as a psychology of choice allows economists to push the boundaries of their subject matter. If economics is the analysis of individual choices, it is possible to include as a study object the choice of any person, regardless of the topic [8]. However, while the boundaries in economics were expanded, the methodological approach was narrowed. Basing economic analysis on a rational choice theory neglects other aspects of economic phenomena that this theory cannot encompass, such as philosophical, ethical, historical, and institutional issues, irrational behavior, and other nonmathematical economic approaches [21]. Contemporary textbook definitions of economics reflect this situation since not much has changed compared to Robbins' definition, even considering the expansion in the boundaries of the phenomena studied by economics. Examples of this argument can be seen in the following contemporary textbook definitions of economics:

> "Economics is the study of how society manages its scarce resources" [23] (p. 4)

> "Economics is the social science that studies the choices that individuals, businesses, governments, and entire societies make as they cope with scarcity" [62] (p. 5)

> "Economics is the study of human behavior, with a particular focus on human decision making" [63] (p. 5)

> "Economics is the study of economies, at both the level of individuals and of society as a whole" [64] (p. 2).

Even Gary Becker, who pushes the boundaries of economics, analyzing crime and punishment with the rational choice approach, in his 1971 economic textbook, maintains Robbins' definition:

> "[. . .] the study of the allocation of scarce means to satisfy competing ends" [65] (p. 1).

However, some scholars, such as Davis [66], argue that the inclusion of behavioral economics in mainstream economics was not complete, because many insights of this theory could not fit well in the models. Some scholars even point out that economic imperialism of mainstream economics is receding because it is currently confronted with the shattered mirror of the so-called "mainstream pluralism", which refers to the coexistence of several research programs in the discipline's mainstream that significantly depart from its neoclassical core and have their roots outside of economics. As a result, these scholars argue that it is happening to a fragmentation of mainstream economics, which formerly had a unitary view of itself shaped by the unit during the era of economic imperialism [67].

7. New Definitions of Economics: Is Economics what Economists Do?

To accurately define economics, it is necessary to draw a distinction between economics and the economy. The first is the field of social sciences that studies economic realities and the second is the economic social reality itself [68]. In this regard, the explanations and definitions made from economics may or may not differ from economic realities. Indeed, one of the main controversies between mainstream economics (MES) and heterodox economics is that MES has colonized the explanation of each economic reality, without considering its historical, social, and cultural context [21].

This controversy was recognized by Polanyi [69], who termed it "economistic fallacy". He argues that the neoclassical economic theory of price market is recognized as the only explanation for every human choice and in every society that has ever existed. In this sense, Polanyi [69] points out that the term economics has two meanings: (i) the formal meaning refers to economics as the logic of rational action and decision-making, as a rational choice between the alternative uses of limited means; (ii) the substantive meaning that presupposes neither rational decision-making nor conditions of scarcity because it simply refers to the study of how humans make a living from their social and natural environment. The formalist approach, based on the neoclassical economic theory, views economic systems as universal and independent of social and cultural contexts, emphasizing the role of rational, self-interested individuals [68]. In contrast, the substantivist approach, pioneered by Polanyi, argues that economic systems are embedded within social and cultural contexts, necessitating the consideration of these factors when studying economic phenomena [70]. In other words, substantivists emphasize the role of culture, institutions, and social relationships in shaping economic behavior. Since it began in the 1950s, the formalist/substantivist debate has experienced several changes and developments, while the argument has evolved from being fiercely opposed to a more nuanced appreciation of the merits of both approaches. The important point here is that economic theory should not be confused with the actual operations of a specific economy. Given that, two questions arise: which approach and definition of economics allows the best understanding of historical and existing economies? And how can economic theories influence and modify real economies?

In the late 1800s, there developed an epistemological debate between deductivists and inductivists over the method of economics, called the Methodenstreit. The debate started from a dispute between Menger and Schmoller [71]. Following a deductivist perspective, Menger underlined that the economic theory should be axiomatized in the attempt to seek laws. On the contrary, Schmoller was an inductivist and member of the German historical school, and he underlined the analytical need to use historical data to seek recurrent regularities [46]. In contrast with this debate, epistemological pluralism points out that both methods have pros and cons [68]. The point is that the importance of a theory is to what extent it explains the part of the reality it tries to explain [72]. For this reason, the approach should be consistent with the object of study. It is understood by consistency that the method can capture all the elements of the portion of reality it intends to explain. For instance, according to [68], formalism—in economics—fails to grasp that trade and exchange in the market are the result of a set of social relationships involving actors, power relations, social structures, and institutions. In this regard, the method of the German historical school probably fits better to explain the development of the capitalist system. Nevertheless, formalism probably better grasps the profit maximization of an individual firm subject to a budget constraint.

Probably one key methodological difference between deductivists and inductivists is the principle of methodological individualism. The neoclassical research project is based on methodological individualism, which places the person as the primary unit of analysis. It suggests that social phenomena and collective behavior can be understood and explained by examining the actions, motivations, and choices of individual actors. In fact, according to methodological individualism, society is the sum of its individuals [73]. In the philosophy of science, there is a controversy with this methodological approach because it leaves out the possibilities of emergent properties [74]. However, following authors, such as [75–77], methodological individualism fails to adequately consider the role of social structures, cultural contexts, and collective forces in shaping individual behavior. In this sense, this principle reduces social phenomena solely to the actions and choices of individuals, oversimplifying the complexity of social interactions and neglecting the influence of broader social factors. In this respect, key points that methodological individualism does not seem to consider are: (i) structural constraints, ignoring the ways social structures, institutions, and power dynamics shape and constrain individual choices; (ii) social context and culture, ignoring its influence on individual behavior; (iii) emerging properties of complex social phenomena, such as social movements or market dynamics that arise from the interactions and interdependencies between individuals, but that cannot be solely attributed to individual motivations or choices; (iv) the bidirectional dimension of agency and structure, where individuals have agency and can shape their social reality, but at the same time, they are also influenced and shaped by structural forces.

A clear example that contrasts with the methodological individualism approach is Karl Marx's methodological approach, which considers social classes as the basic unit of analysis [21]. For him, social class actions differ from individual choices because there are emergent properties that come from the recognition of a consciousness of class. Moving the unit of analysis from the individual to social classes allows Marx to use a dialectical materialism approach, instead of a deductivism approach [78]. These different methodological approaches contribute to focusing the object of economic study on production and distribution, for example, the CSPE and Marxism, or to focusing on market exchange between individual economic agents, for example, the Neoclassical School of Economics. A deeper discussion would be needed on this point, but the main objective of the article is to propose the concept of value and scarcity as key concepts to explain the change in the object of study of economics, instead of contrasting deeply the different methodological approaches between the economic schools of thought.

The part of reality that MES can grasp leaves behind important issues of the contemporary world, such as gender, social, and environmental issues [79]. This has provoked an intense debate in the field of economics that has prompted the emergence of new economic theories and the recovery of old ones. To sum up, contemporary economics reflects neither a homogeneous definition nor fixed approaches, since economists are tackling both (1) different study objects such as gender, Anthropocene evolution, income inequality, sustainability, environment, education, growth, etc., just to mention a few, and (2) with different methodological toolkits that include, for instance, econometrics, real analysis, historical case studies, and laboratory experiments. Today a wide variety of economic thoughts composes the nuanced debate within economics; for example, green, blue, ecological, and circular economic perspectives that question the sustainability of linear economic models [80,81] or feminist economics, ecofeminism, and feminist ecological economics, which also animate the debate surrounding the transition to more sustainable, less resource-dependent societal systems. In this case, as pointed out by [82] (p. 228), in the specific field of ecological economics, it is necessary to "be aware of—and to draw from—these feminist sources, since a gendered analysis identifies structural reasons for the systematic 'externalization' of both the natural environment and gendered, unpaid work in existing economic systems" as a way to recognize, understand, explain, and try to overcome contemporary and mutable societal issues.

The previous point remembers the distinction made by Aristotle between oikonomia and chrematistic. According to Aristotle [83], oikonomia is the art of managing the resources to sustain the household. In this sense, oikonomia is a broader concept that encompasses various aspects of household management, including agriculture, production, and distribution; therefore, it is related to the well-being and virtue of the household members. On the other hand, chrematistic is the art of acquisition and money-making through the accumulation of exchange values using commerce [84]. Therefore, Aristotle [83] argued that chrematistic is narrower than oikonomia and a morally questionable form of economic activity because people pursue wealth for their own sake, often at the expense of ethical and moral considerations. This distinction opens the discussion for the value-free condition of mainstream economics. The discussion for the value-free condition of economics has a long data in the history of economic thought, but the view of economics as a value-free science was consolidated by Robbins [54] and Friedman [59], who defined economics as a positive science free from any value judgments. According to Malecka [85], in the philosophy of science, there is a debate whether the epistemic and non-epistemic values influence scientific theories and how this discussion could be applied to economics. Despite this being a current debate, the institutional structures of economic science at least should enable the identification of value commitments and their criticism, especially non-epistemic values, because they are normative and emotive commitments concerning the moral, social, and political life. In this sense, in a new definition of economics, epistemic and non-epistemic values entering the scientific economic research should be made explicit. The reason behind that is value neutrality does not allow, for example, the identification of gender values [86] or environmental political positions embodied in economics. Table 1 summarizes the main epistemological and ontological properties of the definition of economics throughout the history of economics thought.

Table 1. The main characteristics of the definitions of economics given by different schools of economic thought.

	Classical School of Political Economy	Marginalist School of Economics	Marshallian Synthesis	Robbin's Definition of Economics	Contemporary Mainstream Economic Science
Main research problem	To analyze the social relations of production and distribution	To find the optimal allocation of resources and goods related to countless needs/wants	To find the optimal allocation of resources and goods related to countless needs and wants at the consumer level and maximize the production given a budget at the supply level	To find the optimal allocation of resources and goods related to countless needs/wants	To find the optimal allocation of resources and goods—by analyzing people's rational choices—related to countless needs/wants
Object of study	Society and commodities	Person and society as a linear sum of individual agents	Person and society as a linear sum of individual agents	Agent choices	Rational agent choices
Ontology of the object of study	Materialistic since it studies the empirical social relations of production and distribution	Idealistic since it studies the way people enjoy pleasure and avoid pain	Idealistic for the side of demand (enjoying pleasure) and supply (avoiding the disutility of labor)	Idealistic since it studies the way people enjoy pleasure and avoid pain	Idealistic since it studies the way people enjoy pleasure and avoid pain based on rational agents' choices.
Temporality	Historical	Transhistorical	Transhistorical	Transhistorical	Transhistorical
The human condition and the view of scarcity, abundance, and sufficiency	Scarcity is not naturalized (inevitable) and universal. Scarcity is an empirical fact. Abundance may be reached in growth economies.	Scarcity is naturalized (inevitable) and universal. Scarcity is a theoretical consequence. Abundance is unattainable.	Scarcity is not naturalized (inevitable) and universal. There is a co-determination between needs/wants and the activities to produce resources/goods to satisfy them. Scarcity is an empirical fact for the side of supply, but a theoretical consequence for the side of demand. The abundance of certain resources/goods may be reached in growth economies, but this causes more needs/wants.	Scarcity is naturalized (inevitable) and universal. Scarcity is a theoretical consequence. Abundance is unattainable.	Scarcity is naturalized (inevitable) and universal. Scarcity is a theoretical consequence. Abundance is unattainable.
Characteristics of the concept of value	Labor is the base of value in exchange	Subjective utility proportionated by the satisfaction of individual needs/desires is the base of value in exchange	Demand and supply price is a quantification of the utility proportionated by the consumption of goods and the avoidance of pain is the base of value	Subjective utility proportionated by the satisfaction of individual needs/desires is the base of value in exchange	Demand and supply price is a quantification of the utility proportionated by the consumption of goods and the avoidance of pain is the base of value
Methodological approach	Deductivism	Inductivism	Inductivism	Inductivism	Inductivism
Methodological principle	Holistic, emphasizing social context	Methodological individualism	Methodological individualism	Methodological individualism	Methodological individualism
Scope	Historical and cultural specificity of the economic principles	Universal economic principles	Universal economic principles	Universal economic principles	Universal economic principles
Positive or normative economics	Positive economics	Positive economics	Positive economics	Positive economics	Positive economics
Disciplinary affinities	Politics and economics	Economics	Economics	Economics and psychology	Economics and psychology

8. Conclusions

Throughout history, the schools of economics thought have defined political economy—or economics—and its object of study in multiple ways. These definitions probably differ from each other due to the main research question they have adopted. For instance, the CSPE tried to answer how the society was organized to sustain the production and distribution of wealth; the MSE gave priority to the understanding of how to maximize pleasure; the MSHE focused again on the societal mechanisms to produce and consume wealth; last but not least, Robbins developed his thought focusing on the trajectories of optimal allocation of scarce goods and resources in the face of a myriad wants and needs.

Considering this nuanced analytical scenario, this contribution analyzed different definitions of economics in schools of economic thought and also proposed the concepts of value and scarcity as key concepts to explain the differences between them. This analysis allows us to clarify ontological and epistemological characteristics of the concept of value and scarcity adopted by the schools of economic thought and understand how they have shaped the definitions of economics differently. In this sense, the CSPE adopted a definition of economics that relates to its historical epoch since it appears, as based on empirical evidence concerning contextualized social relationships of production and distribution. Meanwhile, later schools first adopted a transhistorical definition of economics, since it has been based on laws relating to human nature. Secondly, the boundaries of the study object of economics have been expanded, since today it deals with multiple topics (e.g., crime, education, development, health, etc.). Contrariwise, the methodological tools used in economics have been narrowed, since approaches such as the philosophical, ethical, historical, and institutional ones have been left behind. Finally, the part of reality that MES can grasp misses important issues of the contemporary world, such as gender or other social and environmental issues. This has provoked an intense debate in the field of economics leading—as previously seen—to the emergence of new economic theories and the recovery of old ones (e.g., Marxism, feminism, ecologism, or discussions about the development of circular, green, and blue economies).

Considering the above, by way of synthesis, contemporary economics does not have homogeneous definitions and approaches to explain reality. However, it is worth mentioning that the wide variety of definitions does not necessarily create a problem for the field, since economists are generally guided by pragmatic considerations regarding the content and the methodological approach to be considered and adopted [8]. This causes formal definitions of economics to be relegated to the front pages of economic textbooks just to give a first general overview of the subject to students. Nevertheless, the type of definitions and approaches economists adopt show which kinds of social problems are considered valuable and hence relevant to be tackled with priority by economic science. To paraphrase the comment attributed to Jacob Viner, economics is what economists are doing.

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Notes

[1] Menger refers to four objectives related to the satisfaction of needs and wants.

[2] Menger refers to when the needs and wants of a person are more than the goods available to satisfy them.

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