# Meanings and spreading patterns of the "positive" concept in economic thought

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**Abstract.** A brief retrospective on economic thought reveals that, in the quest for the scientific status of their research, economists had to refine not only their research methods, but even the economic language itself. The use and, sometimes, the abuse of the "positive" concept in present economic discourse are clear proofs that the constant changes of economic language mark significantly economic science. Coined by Auguste Comte, who denied the very existence of economic science, the "positive" concept has become for a significant part of economists a keyterm that guarantees and emphasizes the scientific status of their research. Alternatively, an important body of scholars seems to provide a different meaning for this concept and uses it in order to reveal economic facts, more precisely, economic growth. One who is not very familiar with the methodology of economics might be confused by these different meanings hidden in a single term. In this context, the present paper aims to bring more light into this issue by providing both an epistemological analysis of "positive" term and a sketch of spreading patterns of this concept via scientific publications. Consequently, the research follows two major well-defined paths: 1) the epistemological analysis of various meanings related to the "positive" term and 2) the quantitative study of occurrences in which this concept is used and cited in economic journals with high ISI citation index.

**Keywords:** positive; epistemology; economic language.

JEL Code: B41. REL Codes: 2B, 18F.

## 1. Introduction

After two hundred fifty years since the founding the economic science and after a millenary history of economic ideas, a very large part of the economists seem more and more certain that they found in the qualitative analysis the right path of the economic science identity and the unravel of the epistemological mystery of multilateral way of thinking and of the research methods. The systematic spread of ideas according to which the economist has to convey to empirical rules that help organize the knowledge and the research in the so called "tough" sciences does not mean anything else than submitting to the requirements of the "positive economy" or even the "normative" one, shifting the scientific interest towards "what it is" and obviously towards "what it should be". This great controversy in the economic science appeared almost two centuries ago between the "quantitativists" and the "explicationists". Positivists conviction in the power of the quantitative modeling to change the economic orientation goes beyond any doubt even when the "explicationists" asks: What is noticed and what is actually measured?

The obsessively repeated economic concepts associated with the positive term show the high frequency of the words "positive economy". The term "positive economy" comes from the spreading of the influence of positivism on all areas of knowledge. In the intellectual history of ideas, the detailed analysis of positivism made by Theodor Ruyssen reveals a set of trends in thinking which consider that only the analysis and knowing the real facts verified by experience can explain the phenomena of the sensorial world. The followers of positivism invoke the certainty given exclusively by the scientific experience, they reject introspection, intuition or any other form of metaphysical approach that could explain understanding the phenomena. In the 19<sup>th</sup> century, the positivism, as a logic empiricism, spread across all fields of knowledge including the economic one.

In this context, the purpose of this paper is, on one hand, to analyze the meanings given to the term "positive" in the various epistemological currents that have found their echo in the economic science and, on the other hand, to conduct a quantitative study on the occurrences of the positive term as "positive theory" and of the couple "positive-normative" in the journal *The Quarterly Journal of Economics* and *The Journal of Economic Literature* in order to estimate the frequency of the use of this term and also the common contexts in which it is used.

#### 2. The positivist current in economy

#### 2.1. Social positivism

Positivism was launched in the scientific community by Auguste Comte, initially in the form of scientific positivism, and since 1847 until the end of his life, he oriented positivism towards the "new law of humanity" with his own "religion" (Marietti Kremer, 1997). Auguste Comte, as every utopian from the beginning of the nineteenth century, dreamed of a society based on unified science, on positive science. In the particular manner of the Encyclopedia-tists, Auguste Comte suggests a holistic research program and an ad hoc structure of sciences: "the positive philosophy includes five or six sciences: mathematics, astronomy, physics, chemistry, biology and sociology" (Comte, 1910, p. 18). The place that each science has in the hierarchy depended on the fulfilment of certain criteria, such as: the degree of accuracy, the degree of objectivity, the degree of historical priority, the degree of precision and the degree of certainty. A study subject can be considered a science if there is a class of homogeneous phenomena, if they met the criteria of relevance and if the related phenomena could be researched using the positive method (observation, experience and measurement). Therefore, in this set given by Auguste Comte, the economic science did not take place because it did not meet the requirements to access the set of sciences. Auguste Comte went further to introduce the Discourssur l'ensemble dupositivism, exposes the manner in which the "Positive Philosophy decomposes in social philosophy and natural philosophy, the latter being a fundamental preamble of the former, the only object defining our real speculations" (Comte, 1848). "The positive political system" envisioned by Auguste Comte was founded on laws, among which the "positive theory of accumulation" was primordial. Resulted from the combination of subjective law - "every man can produce more than he or she consumes" - and one objective, "certain assets can be preserved beyond the time necessary for their reproduction" (Comte, 1851), the "positive accumulation theory" gives one of the meanings of the term "positive economics", the one of economic growth". The positive political system" generates "positive economics" and "social organism" guided by a "positivist spirit", whose training lays in the hands of the encyclopedia education resulted from the Comtian set of sciences in order to ensure social solidarity. To achieve social solidarity, Comte analyzes the principles which determine social cohesion convinced that the social balance of the planet depended on the economic and social conditions of "social organism"

(Comte, 1848, p. 35). Auguste Comte's conclusion holds the historical method of identifying the interaction between different aspects of a society at a certain moment in time, a method that will become the symbol of historical schools of economic thought in the nineteenth century and of the famous "fight for method". *The positive economics* has found its pillars in the historical method of illustrating with facts using the description. Therefore, the interest for positive economy was caused by the expansion of historical schools, seeking a remedy to the "anemia" of economics, whose promoters were attacking hard the classics, especially "the gap between economic theory and economic reality."

To a greater or lesser extent, all the great economists of the nineteenth century engaged in economic emancipation of moral and political science have been touched by the positivist "virus". The first condition for the scientific understanding of the economic phenomena was the objectivity of the theoretical speech of the economic science and the axiological neutrality. To achieve that the economists had to forget the empirical past and the ideological context specific to the first scientific economic research. The attempt to empower the economics was strongly contested by Auguste Comte and by his English, German and French followers (Gide, Rist, 1926, pp. 525-526). Criticism was focused particularly on the impossibility to isolate the economic fact derived from a *social organism solidarity*. Thus, Comte and his followers denied the possibility of an economic science on behalf of that very intimate solidarity between different aspects of the "social organism" (Comte, 1910, pp. 274-294).

Comte's positivist vision seemed to be revived in the mid twentieth century when an economist, Milton Friedman, made even the followers of quantitative analysis startle with his *Essays in Positive Economics* (1953), where, quoting Marshall, he sustained: "the ultimate goal of a positive science is the development of a «theory» or a «hypothesis» that provides valid and meaningful predictions (meaning irreducible to truisms) about yet unobserved phenomena. Such a theory is, in general, a complex mix of two elements. On one hand, it is a "language" intended to promote "systematic and organized methods of reasoning" and, on the other hand, it is a set of hypotheses with empirical content designed to abstract essential features of a complex realities" (Friedman, 1953). The wave of confusion and protest against such manner of treating economic science could not be stopped not by the withdrawals of Friedmann or by the prestige that he has gained. However, Milton Friedman's *Essay* is one of the few explicit and under taken reactions to the Comtian positivism. The positivist vision analysts, as Angèle Kremer Marietti, gave an

equivocal verdict: "Basically, Milton Friedman presents a positive epistemology identical to that of Comte. Also, Friedman fully agrees with Auguste Comte, when he values a theory on its predictive power for the class of phenomena whom it allegedly explains, because the prediction confirms the explanation" (Kremer Marietti, 1997).

#### 2.2. The Austrian approach

In a world of science dominated by positivism, the "research program" introduced by Carl Menger brought clarity in how to deal with economic science. Indeed, sciences have something in common, but also differ: some deal with material nature and other with human nature; the first ones derive their knowledge retrospective from experience, the latter's do so a priori, in other ways than empirical. The sources of inspiration, sometimes confusing, have led the historians of economic thought towards interesting arguments, but rather uncertain. Mark Blaug, for instance, has enough courage to say: "This leads us to a seek general movement in philosophy or social sciences which have emphasized the introspection as a tool for making assumptions about economic behavior. Some authors were shocked be the revival of the Kantian philosophy in the mid-century, starting from Germany and then expanding across the continent. Back then, the "Back to introspection and the meaning of impression" was the slogan of the philosophical current" (Blaug, 1992, p. 335). Anyway, the efforts of Carl Menger and his followers were orientated towards two major directions defining the "Austrian research program": on the one hand, to develop a quality economic theory, on the other hand, to identify the method of economic science. In this context, as Böhm-Bawerk noted, "many of the Austrian economists writings were devoted to the dispute over the method: among them, the study of Carl Menger – Untersuchungüber die Methodeder Sozialwissenschaften (The study on the method of social science) - made the first thorough going and detailed analysis about the issues under discussion. It should be noted in this context that the "exact" method or, as I prefer to say, the "isolation" method is by no means purely speculative and non-empirical, but rather, this method always seeks and finds its foundation in experience" (Böhm-Bawerk, 1891). Indeed, in the Economic principles Carl Menger reiterated the idea after which the economic phenomena are, firstly, phenomena of human nature, and the economic science is a a priori science, thus innovating where others preferred the inertia of our "parents" tradition of economic science. Consequently, prior to the research of quantitative relations, the economic science imperative was knowing human nature of economic phenomena, because "all things are subject to the law of cause and effect. This great principle knows no exception and we would looking vain for an opposite example in the field of experience" (Menger, 1994, p. 5).

The correspondence of that time reveals the firmness with which Carl Menger promoted his research program, but also the reservation to the enthusiasm to the mathematical formalization shared by the followers of measurement. Convinced of the relevance of measurement and formalization, Blaug cites such a situation: "in a letter addressed to Walras in 1884, Menger insisted that "mathematics cannot help the economist find the quantitative essence of the phenomena such as value, rent and profit" (Blaug, 1992, p. 331). The wickedness of Blaug's observation, that "this attitude has remained characteristic of Austrian writers who went so far as avoiding the need for mutual simultaneous determination of all economic variables" (Blaug, 1992, p. 331), does nothing but deepen doubts about the non-mathematical approaches.

The short psychology involved by the new economic way of thinking placed at the center of research not only a new fundamental theory – the theory of final utility – but a living subject – the individual – whose behaviour draw lines after which the economy moved. However, focusing the economic analysis on the human experience, on the individual preferences and choices emphasized the demarcation of the "Austrianism" from other economic concepts, particularly from those called objectives. However, Carl Menger remained to a considerable extent tributary of the intellectual heritage oscillating in the research field demarcation of economy between production of goods and individual behaviour regarding the property. His disciples followed the research program, but abstained to charge the disaccords in the master's account, accepting them as quasi-mandatory passages of the "childhood economic science". This made Eugen von Böhm-Bawerk to change the scientific registry regarding the positive theory of capital and interest. In other words, why is the interest rate positive? Eugen von Böhm-Bawerk answer sends us to the production experience accumulated by people in time and to the time preference, meaning to the marginal utility theory (Böhm-Bawerk, 1959).

#### 2.3. Eclectic positivism

Alfred Marshall, for the first time in the history of economic thought, made a synthesis of classicism, the German historical school and marginalism, arguing that observation and experience are needed to determine the immediate and subsequent effects of different groups of causes, which meant that economic science was founded, in his view, on a positive review. In this context, Alfred Marshall argued for economic analysis using empirical method, which is consistent with the mission of economics and "the role of science was to assemble, collate, analyze economic facts and use knowledge obtained from observation and experience" (Marshall, 1890). Fixing a heterogeneous theoretical framework demands a proper vision of reality: economic laws should be understood as trends showed only "what is" (positive view), without showing "what should be" (normative vision), so without ethical conditions (Gélédan, 1988, p. 115). However, Marshall gave way to value judgments when he focused on the end purpose of economics, especially on its ability to solve practical problems and to establish standards of economy "economic laws and judgments are only part of the material that the consciousness of people and their common sense use to solve practical problems and to establish rules that can serve as a guide to life" (Marshall, 1890). Instead of homo oeconomicus schematized, Alfred Marshall introduces the idea of behaviors that were very different, but which should avoid excessive simplification: "instead of business activities, performed with power and skill, there is a continuous gradation based on calculations designed for along time, while ordinary people do not have the power or the will to direct their interests as businessmen" (Marshall, 1890). Therefore, economists "dealt with man as he was, not an abstract or economic man, but a man in flesh and blood" (Marshall, 1890). If the economist studies especially how man pursues its own gain, this does not mean that he tries in this way to reduce the economy to a "natural history of selfishness" for the simple reason that this behavior can be expressed in monetary terms, the effects are scientifically affordable in comparison with philanthropy, vanity and sense of duty (Marshall, 1890). Overcoming the mechanical complex, but not the evolutionist temptation, Alfred Marshall created a scientific product that quickly imposed on the market of ideas which dominated economic thinking until up to John Maynard Keynes. As noted by some analysts, from edition to edition, the Principles were "retouched" according to the author's desire to better reflect his thinking. At the same time, one can notice a polishing of economic philosophy of Alfred Marshall, "the preface to the first edition is dependent on the continuity principle expressed by the motto «Natura non facit saltum» as an element of linkage throughout the book. Looking through the Principles one may notice «the fundamental idea», i.e. the idea of «general theory of supply and demand balance»" (Blaug, 1992, p. 430). Instead, as Blaug notes in the preface to the eighth edition, the author "brings a note of apology to the static nature of the analysis of *the Principles*. Despite the frequent use of the idea of *«ceteris paribus»*, Marshall points out that the key element of his book is dynamics and not statics. Even if so, statics and dynamics do not represent the entire economy, «the Mecca of the economist is based more on economic biology rather than economic dynamics»" (Blaug, 1992, p. 431). At the same time, one cannot draw out marginalism from the work of Alfred Marshall for the simple reason that "the margin concept that determines the price has gained increasing importance in *the Principles* and once with it, it was revealed that margin varies against the conditions of the problem under discussion and especially with period of time referred to" (Blaug, 1992, p. 431).

#### 2.4. Deductive positivism

The status of economic science, denied by Auguste Comte and put to doubt by skeptics, as well as the preference of many for sociology based on positivist criteria have led to serious epistemologic disputes, "yet not until Pareto's writings would one be able to find the most consistent analysis of the articulation of economics and sociology, as well as the most refined theorization of methodologis correlations between the two disciplines" (Passeron, 2004).

Vilfredo Pareto was not only the successor of Léon Walras la Lausanne, but also the one who continued many of the latter's ideas. To formalize and translate into mathematics economic theories were not enough to counter the accuses of historists directed towards traditional economists (including here Pareto). In the context of the controversis on method, Vilfredo Pareto (1896, 1906) brings clarifications on the nature of economic science: "There are two main categories of sciences: the ones that, like physiscs, chemistry, mechanics, may revert to experience, and the ones like weather forecast, astronomy, political economy which cannot or may be able with great difficulty revert to experience, and are therefore content to observe" (Pareto, 1919). Yet, in the perspective of Vilfredo Pareto, political economy, the economic science, respectively, described a gradual structure of research essentialized in the two forms: first, Pure political economics, which, like physiscs or mathematics, ensured a first approximation of phenomena and of the general conditions for balance and had own research ways - progressive reconstruction of reality (Gélédan, 1988, p. 155). The method employed by Pareto corresponded to his scientific objective of identifying the research domain of *Applied political economics* and implied analysis and synthesis, as well as rational route from simple to complex, from concrete to abstract, borrowing from history and sociology; this was supposed to offer essence to *Pure economics*. Thus "Pareto was, probably, the founder of an explicit positivist approach in economics" (Rothbard, 1956, p. 231).

The advantage created by Pareto revealed a science emancipated not only by morality, but also by politics; the new "face" of economic science uncovered a purely deductive and non-ideological type of economics, where the laws of natural economy dictated the order. Very much aware of the importance of economics' various implications, Vilfredo Pareto saw economics as a mechanic assembly which only functioned if provided with necessary support: "Human society appears ... as a giant aggregate of molecules, that provides service, consumes products and has restrictions in spending, of centers or glandes where economies transform into capital, and products change ones into others..." (Gélédan, 1988, p. 160). Past the dispute related to the subtlety of endeavor on the ideologic neutral, the Paretian theory seemed to gain ground be this only for this advantage. As some economic thought analysts observed: "Thus defined, political economics became purely deductive, that is, it proposed to deduce all consequence from data: initial constraints and goals the society had. Observing true behavior of agents was replaced by rationality postulate" (Grellet, 1979, p. 32). The history of economic thought retained only momentarily Pareto's argument, political economics from a technique considered universal seemed to halt into autism that diluted the consistency of economic thought. Unfortunately, economic science depended too much, and still depends today, on the academic intellectual trend of the time, generator of enthusiasm for change. Yet, too much change can generate doubt over scientific seriousness and economic science may lose credibility. The controversies over initial data, scope and means have continued and do not seem to have ended, unless if something hard to suppose, economists would accept, without exception, without further addings, without corrections, without further developments, a common point of view on economic science. The Paretian viewpoint has dominated through logical simplicity until the fourth decade of the 20th century, although reference to Paretian arguments have been made directly or indirectly every time economics is confronted with a tough situation.

Pareto's endeavor highlights the progress in economic science, but also the epistemological difficulty, that had not yet been surpassed, that of "cutting out" the economic phenomenon from the global social fact without alteration or modification. Israel Kirzner, in agreement with other renowned authors, drew attention to the risks of changing research method on the go: "When the nature of economics is defined in this way, by the analysis of a unique general element in our consciousness to which only the term "economy" corresponds, then it must seem very obvious indeed that faulty definitions can seriously distort the character of the science. And when the analysis of this element has been made possible only by virtue of familiarity with the substantive content of the science itself, then its formulation into a definition can clearly take on the character of a positive scientific contribution" (Kirzner, 1996, pp. 10-11). There are at least two rules of economic research raised from the controversies around methodological issues – to isolate to analyze and to abstract to understand. The first requires a thorough knowledge of economic theory, second, to identify human actions that ensure a balance between "facts of the human nature and the external world" (Kirzner, 1996, p. 13). However, the increasing interdependence among sciences reveals more than just the need for boundaries between different areas of knowledge. It also shows the common issues between different sciences and that they all converge to a common epistemological point - scientific truth. Perhaps the actions of the two great authors – Léon Walras, and respectively, Vilfredo Pareto – to divide research from economics could be understood from this point of view. Still a question remains: In fact, how many economics we are dealing with?

#### 2.5. Logical positivism

Rooted in European philosophical tradition of empiricism, logical positivism is one of the most widely spread and controversial epistemological school of the early twentieth century. Its main aim is to identify the extent to which knowledge has a genuine scientific meaning. In this context, scientific knowledge is only mediated by experience and uses assumptions which have a cognitive significance; this kind of knowledge can be enriched either by observation or by logical analysis. According to logical positivism, there are only to types of statements that comply with cognitive significance criterion: analytic statements (tautologies and self-contradictions which can be found in any scientific language) and synthetic statements (assumptions related to facts which may be verified by observation). On the other hand, all other statements that do not fall into one of the above categories may be considered

metaphysical, they are neither true nor false and, although they describe significant daily individual's behavior, they are placed outside of the scientific method.

Consequently, logical positivism requires that all scientific knowledge to follow this rule: there is a direct relationship between a statement and empirical observation. On the other hand, scientists found difficult to apply this rule in daily practice and they never missed a chance to highlight the vulnerabilities and limits of positivist approach which gradually eroded its basic assumptions. Despite all these difficulties, a part of the undeniable achievements of contemporary epistemology, such as hypothetic-deductive or nomologic-deductive models, were accomplished by logical positivism approach. Moreover, logical positivism seems to have drawn three specific research directions in the field of epistemology: demarcation criterion, the nature of scientific explanation and the growth of scientific knowledge. Also the most important contemporary epistemological theories started by challenging specific assumptions of positivism. This is the case of Popper's falsificationism, Khun's theory, Lakatos theory of research programs or Feyerabnd's epistemological anarchism.

Logical positivism made its way in economics mostly through Terence Hutchison paper, *The Significance and Basic Postulates of Economic Theory*, which was published in 1938, a time when economics gone through deep reconfiguration triggered by the Great Depression and the new theory of Keyenes. The very ambitious goal of Hutchinson's work is not only to restore the real scientific character of economics, but also to lay the foundations of modern economics. In Hutchinson's view, which is consistent with the positivist approach, any science is about real facts, thus all scientific statements are about an existing and observable reality. Economics was diverted from this path by the assumptions and abstract methods of traditional microeconomics.

Following logical positivism tradition, Hutchinson identifies and classifies three types of possible economic statements: 1) deductive inferences which are pure theoretical assertions equivalent to analytic statements of positivist approach, they imply that a fact is necessary logical consequence of another; 2) empirical inferences are specific to applied theory and they are equivalent to synthetic statements of positivist approach, the sestatements imply that the value of truth of the hypothesis is determined by empirical observation while the conclusion follows logically from hypothesis; 3) inductive statements are drawn based on repeated observation of a phenomenon and imply that even

though, logically, a sentence may be false, its falsity is actually a case so rare that it can be ignored.

Providing a brief analysis of these types of statements, Hutchinson assumes that only inductive inferences could provide the scientific character of a discipline whereas deductive statements are tautologies emptied by any empirical content that does not provide the link between science and observable reality. Although deductive statements seem to refer to facts, they are language constructs which only render relations between definitions and not between real facts (Hutchinson, 1938, p. 30). In addition, Hutchinson blames the excessive use of *ceteris paribus* assumption in economics which scarifies any unknown observation for a logical solution with no empirical content (Hutchinson, 1938, p. 42). Although deductive statements are not scientific statements this does not mean that they are useless. Their pragmatic objective is to create a clear language that allows an effective approach to economic facts. On the other hand, the real scientific assumptions are the statements that can be directly tested or, otherwise, can be reduced to simple sentences that can be subject to these tests. These tests are not intended to give a final verdict on the truth value of the sentence, but only to establish empirical consequences of designated truth values derived from these empirical statements (Hutchinson, 1938, pp. 9-10).

In the framework of the newly created methodology, Hutchinson launches some aggressive critics against traditional economy highlighting the lack of empirical content of the basic assumptions of traditional theories and the misuse of introspection (psychological approach) as an economic method while he further promotes the need for a frequent usage of more developed empirical methods in economics. Moreover, Hutchinson reverses the assumption traditional economy in which logic is above observation and provides a new standard for economic science: the only scientific laws are inductive inferences that, even though can be logically falsified, they were never falsified in practice (Hutchinson, 1938, p. 64).

In the view of logical positivism transferred into economics via Hutchinson, the positive character of a theory consists in its ability to operate with statements derived from empirical observations that are confirmed in as many cases as possible. The confirmation tests consist in applying more complex statistical and econometric techniques. Purely deductive statements are not excluded from economics, but they are only an interface between reality and theory that allows a formalized approach to economic facts.

## 3. Analysis of "positive" concept occurrences

## 3.1. Research methodology

The research was based on papers published in two significant economic journals: *The Quarterly Journal of Economics* and *Journal of Economic Literature*. These two journals were selected considering the mainly theoretical content of articles accepted for publication and relative influence score held by the two journals. Thus, according to the classification in January 2012 the first three journals on the economy are:

Main scientific journals in economics

Table 1

Nr. crt.	The review	ISSN	Relative impact factor (Journal)	Reference influence score (Field)	Relative influence score (Journal)	Country
1	QUARTERLY JOURNAL OF ECONOMICS	0033-5533	5.00621	0.746	15.66488	UNITED STATES
2	ECONOMETRICA	0012-9682	3.5461	0.5965	12.93378	ENGLAND
3	JOURNAL OF ECONOMIC LITERATURE	0022-0515	6.13387	0.746	11.09115	UNITED STATES

Source: UEFISCDI.

The Quarterly Journal of Economics is the oldest journal of economics (first issue in 1886) being published by Harvard University Department of Economics. Papers published in this journal were accessed via JSTOR database, Google Scholar and Oxford Journals Full Collection 2012. A total amount of 6,111 papers were available. Journal of Economic Literature is one of the most significant academic journals in economics being published since 1963 by the American Economic Association. Papers published in this journal were accessed via JSTOR database, Google Scholar and ProQuest. A total amount of 9,084 articles were available for this research.

The first aim of the research was to identify the frequency of use of the term "positive" as a scientific approach (occurrences that refer to other meanings such as showing mathematical sense, quantitative or qualitative assessments, etc. were removed from research). The second goal of research was to find out the most frequent meanings associated with "positive" term. Following this objectives, the research identified, in the first instance, items containing in text or title the key term "positive theory" and, in the second phase, the research was extended by searching papers that contain in text the pair "positive"-"normative".

#### 3.2. Research results

# 3.2.1. Research of the key term "positive theory"

Searching database by term "positive theory" allowed us to identify in the two target journals a total amount of 135 papers, 36 published by The Quarterly Journal of Economics (QJE) and 99 published by the Journal of Economic Literature (JEL). Of these, a total of 77 occurences were in the text (22 and 55 QJE published in JEL), and 58 articles include references to papers containing "positive theory" term in their titles (14 published the QJE and 44 in JEL).

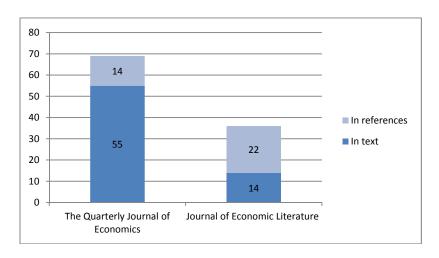


Figure 1. Papers that contain "positive theory"

Most cited papers that contain the term "positive theory" are: E. von Bohm Bawerk, Positive *Theory of Capital and Interest*, R. Thaler, *Toward a Positive Theory of Consumer Choice*, Robert J. Barro and David B. Gordon, *A Positive Theory of Monetary Policy in a Natural-Rate Model*, A. Alesina and Tabellini G., *A Positive Theory of Fiscal Deficits and Government Debt in a Democracy* and Ole Hagen, Towards *A Positive Theory of Preferences Under Risk*. The total amount of citations to these papers is presented in the chart below.

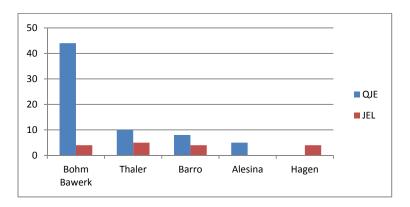


Figure 2. Most cited papers with title containing "positive theory"

# 3.2.2. Analysis of "positive"-"normative" dyad

The research of total occurrences of "positive"-"normative" dyad ino target journals led to the identification of a total of 253 papers (151 in QJE and 102 in JEL). These papers have been the subject of a in-depth analysis of the context in which "positive"-"normative" dyad is used. Papers were classified into three distinct categories:

- I. Papers in which "positive" term is either defined or explicitly associated with a meaning.
- II. Works in which "positive" and "normative" terms are used without being defined or explicitly assigned with a significance.
- III. Papers in which only the "normative" term is present as opposite to "positive"

The distribution of papers into the three defined categories is presented in the chart below.

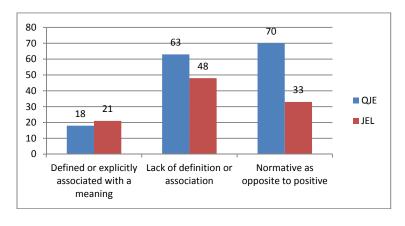


Figure 3. Distribution of papers into the defined categories

For the items falling in the first category, the research involved identifying the most common significances associated to "positive" terms. Furthermore, for this papers the total amount citations in JStor and Google Scholar data bases were quantified in order to investigate how these associations were spread among scholars. The first 10 papers are presented in the following table.

Significances to "positive" term

Table 2

No Author Title Journal Associated JSTOR Google Sch								
		ritie	year	significance	citations	Google Scholar citations		
1	Donald N. McCloskey	The Rhetoric of Economics	JEL- 1983	Scientific Facts Objective Vigorous Precise	46	2417		
2	Israel M. Kirzner	Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach	JEL- 1997	Entrepreneurial knowledge	34	1832		
3	Paul J. H. Schoemaker	The Expected Utility Model: Its Variants, Purposes, Evidence and Limitations	JEL- 1982	Popper falsificationism	22	1131		
4	Burton A. Weisbrod	The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care, and Cost Containment	JEL- 1991	"What it is"	24	621		
5	Melvin W. Reder	Chicago Economics: Permanence and Change	JEL- 1982	Descriptive	16	448		
6	Lazear, Edward P.	Economic Imperialism	QJE- 2000	Predictive	4	399		
7	Daniel M. Hausman and Michael S. McPherson	Taking Ethics Seriously: Economics and Contemporary Moral Philosophy	JEL- 1993	Descriptive	18	389		
8	Lawrence A. Boland	A Critique of Friedman's Critics	JEL- 1979	Correspondence rules between reality and theory	19	310		
9	Victor R. Fuchs, Alan B. Krueger and James M. Poterba	Economists' Views about Parameters, Values, and Policies: Survey Results in Labor and Public Economics	JEL- 1998	Without value judgments	10	304		
10	Robin Marris and Dennis C. Mueller	The Corporation, Competition, and the Invisible Hand	JEL- 1980	Rigorous Test Consistent with empirical observation	21	227		

The analysis revealed that the most frequent significances assigned to "positive" term are the "descriptive", "what is it" or "empirical". These meanings are consistent with positivist approach.

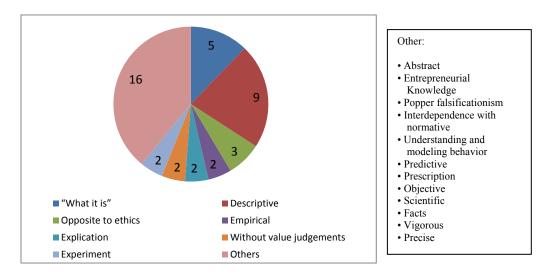


Figure 4. Significances to "positive" term

#### 4. Conclusions

This study reveals that for a long period of time (1889-1931), most papers made appeal to "positive" term in close correlation with positive theory of capital and interest developed by Bohm-Bawerk. Thus, the term "positive theory", although rooted in current positivist science, was brough to light in economic papers by the Austrian theory. On the other hand, there is an interesting paper published in 1901 which is distinct among many references to the positive theory of capital and interest. This paper, published by Frederick B. Hawley, provides one of the first definitions of economics in a scientific journal. In a clear positivist tradition, Hawley suggests a positive definition of economics: "Economics is the study of the interrelations of that group of egoistic human activities which are called into combined action by the expectation of a definite personal share of the purchasing power resulting from their joint activity; and of their outer relations or how these activities and their results are affected by the physical, ethical, and social environment, and by changes in the environment" (Hawley, 1901). The positivism faith in purely descriptive role of economics is revealed also by F.H. Knight who, referring to

objective standards of utility, states that "[...] Any other view carries us at once into an evaluation of the values of one individual by those of another, or by some absolute standard, which is unavoidable in the normative sciences of ethics and aesthetics, but will not do in a descriptive science of economics" (Knight, 1917, p. 70). Also, two of the most important papers published in the 30's in The Quarterly Journal of Economics are critics of the positivist movement against Lionel Robbins's essay, "The Nature and Significance of Economics". First, T. Parsons notes that in his attempt to free positive economics from any metaphysical temptation, Robbins is close to radical positivist approach that eliminates the nature and significance of economics (Parsons, 1934, p. 514). Economics could keep its positive approach if all its abstract statements can be identified empirically in reality (Parsons, 1934, p. 519). In addition, positive economics assumes that there are rules which "can be expressed in terms of the balance equations. They are abstractions to be combined with other items to provide a complete explanation of reality" (Parsons, 1934, p. 520). Finally, Parsons concludes that economics cannot become a positive science by a simple analogy with physics (Parsons, 1934, p. 521). On the other hand, R.W. Souter argues against Robbins's view according to which normative is synonymous with ethical and stresses out that normative economics is different from ethics. Normative economics does not investigate the ethical content of an end in itself, it only borrows from philosophy an abstract ethical concept (e.g. social profit maximization) in order to find out the particular conditions in which that goal can be achieved (Souter, 1933, pp. 401-402). In traditional economy drawn by Robbins, positive approach refers only to individual behavior guided only by its rational rules (Souter, 1933, p. 390). Neverthelss the ultimate goal of economics is "the organic integration positive economics with normative view [...]" (Souter, 1933, p. 388).

Starting with macroeconomic approach that followed Keynesian theory, the positivist view was spreaded via the following assumption: the aim of positive economics is to analyze "what is" as opposed to normative approach that focuses on "what should be". An example of this assumption is provided by the following statement found in one of the most influential articles on the labor market: "The distinction between positive and normative economics is, in principle, as clear cut as the difference between the questions of "What is?" and "What ought to be?" (Cain, 1976, p. 849). This approach is reinforced by the belief of some scholars that economics has become the study of the price

mechanism using mathematical, deductive and positive methods (Miller, 1997, p. 1173) and economic theory is a tool for modeling and understanding human behavior (Samuelson, 1997, p. 77).

However, there is a significant body of economics that tries to further extend positive economics beyond the strictly descriptive-empirical tradition. A particular paper that draws the attention of epistemologists is that of Donald N. McCloskey, *The rhetoric of economics*. According to McCloskey, positive science is the result of a series of contributions made in the following sequence Carnap-Kuhn-Popper-Lakatos-Feyerabend (McCloskey, 1983, p. 493). McCloskey conducts a contrastive analysis of positive and normative terms showing that positive approach is associated with concepts such as scientific, factual, objective, robust, accurate, things, cognition, strong, while normative approach is associated with terms like humanist, opinion, subjective, imprecise, vague words, intuition, soft (McCloskey, 1983, p. 510).

Therefore, in the twentieth century positivism moved far away from one or another science and became isolated in elitist metaphysics of the great intellectuals, but "positive economics" and quantitative analysis gradually conquered research, publications, universities and scientific awards. In the ocean of quantitative analysis "expicationist" researchers seem lost wandering souls, disappointed by the low position of fundamental disciplines in universities compared to disciplines that measure and quantify (Vaughn, 1993, p. 174).

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#### References

Blaug, M. (1992). *Teoria economică în retrospectivă*, Editura Didactică și Pedagogică, București

Böhm-Bawerk, E. von (1959). *Capital and Interest*, South Holland, Illinois: Libertarian Press Böhm-Bawerk, E. von, Leonard, H. (1891). "The Austrian Economists", *Annals of the American Academy of Political and Social Science*, Vol. 1, January, pp. 361-384

Cain, G.G. (1976). The Challenge of Segmented Labor Market Theories to Orthodox Theory: A Survey, *Journal of Economic Literature*, Vol. 14, No. 4, December, pp. 1215-1257

- Comte, A. (1848). *Discours sur l'ensemble du positivism*, Edition électronique réalisée par Jean-Marie Tremblay à partir du livre d'Auguste Comte, *La science sociale*, Paris: Éditions Gallimard
- Comte, A. (1910). La philosophie positive, Paris: Flammarion
- Friedman, M. (1953). The methodology of positive economics, pp. 3-43
- Gélédan, A. (coord.) (1988). *Histoire des pensées économiques*, Les fondateurs, Edition Sirey, Paris
- Gide, Ch., Rist, Ch. (1926). *Istoria doctrinelor economice de la fiziocrați până azi*, Editura Cassei Școalelor, București
- Grellet, G. (1979). Tendances nouvelles de l'économie politique, Édition du Centurion, Paris
- Hawley, F.B. (1901). "A Positive Theory of Economics", *The Quarterly Journal of Economics*, Vol. 16, No. 2, February, pp. 233-264
- Hutchinson, T. (1938). The Significance and Basic Postulates of Economic Theory, Macmillan, London
- Kirzner, I.M. (1996). *Perspectiva economică. Un studiu asupra gândirii economice*, Editura ALL, București
- Knight, F.H (1917). "The Concept of Normal Price in Value and Distribution", *The Quarterly Journal of Economics*, Vol. 32, No. 1, pp. 66-100
- Kremer Marietti, Angèle (1997). "L'économie positive d'Auguste Comte: entre celle de Jean-Baptiste Say et celle de Milton Friedman", *Colloque La tradition économique française 1848-1939*, Lyon, les 2 et 3 Octobre 1997
- Marshall, A. (1890). Principles of Economics, 8th edition, Macmillan and Co., London
- McCloskey, D.N. (1983). "The Rhetoric of Economics", *Journal of Economic Literature*, Vol. 21, No. 2, June, pp. 481-517
- Menger, C. (1994). Principles of economics, Illinois: Libertarian Press, Inc., South Holland
- Miller, G.J. (1997). "The Impact of Economics on Contemporary Political Science", *Journal of Economic Literature*, Vol. 35, No. 3, September, 1997, pp. 1173-1204
- Pareto, V. (1919). Manuale di economia politica con una introduzione alla scienza sociale, Società Editrice Libraria, Milano
- Parsons, T. (1934). "Some Reflections on The Nature and Significance of Economics", *The Quarterly Journal of Economics*, vol. 48, No. 3, pp. 511-545
- Passeron, J.C. (2004). "Pareto: l'économie dans la sociologie", Economia, sociologia e politico nell'opera di Vilfredo Pareto
- Rothbard, M. (1956). Toward a Reconstruction of Utility and Welfare Economics, in Mary Sennholz (editor) (2008). On Freedom and Free Enterprise: Essays in Honor of Ludwig Von Mises, The Mises Institute, Aubrun, Alabama
- Samuelson, L. (2005). "Economic Theory and Experimental Economics", *Journal of Economic Literature*, Vol. 43, No. 1, March, pp. 65-107
- Souter, R.W. (1933). "The Nature and Significance of Economic Science", in Recent Discussion, *The Quarterly Journal of Economics*, Vol. 47, No. 3, pp. 377-413
- Vaughn, K. (1993). "Why Teach the History of Economics?", *Journal of the History of Economic Thought*, Vol. 15, No. 2, pp. 174-183