Credible Economics *

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Why do we ask the question “How scientific is economics?” Why does anyone care whether it is or is not?

This essay suggests that Methodus has proposed the wrong question for our debate. It then frames the correct question and proposes the right answer. Who could ask for more?

A better question about economics than whether it is scientific is this: when is economics credible? This essay addresses that question.

What economists seek is credibility, to be believed. We hope our endeavor is “scientific” only because, if it is, we will be believed. If we were to achieve credibility which happened not to be “scientific,” we would soon seek other discontents. Furthermore, there are credible core theses of economics with which nearly all (non-socialist) economists agree and which have large social importance.

Claims

The circumstances in which most economic research is done leave even most economists unaware that, on many of the most important issues, they agree. Compare the material condition of the common man in the First World during the depth of a recession with the material condition of the common man outside the First World at any time. Then consider material conditions in the First World in good times and bad. The difference in the former case is much larger than the difference in the latter. Economists disagree about the causes of business cycles and about the cure for the misery which results during downturns. About much of the nature and causes of the wealth of First World nations – the source of a much larger difference in material well-being than are business cycles – economists agree. Large social benefits could result from wider recognition of that agreement.

This essay makes four claims, each presented in a separate following section.

FIRST, there are several quite different scientific activities – here indicated as science(g), science(i), or science(s); only science(g) is entirely credible. The next section describes those scientific activities and a note (Korzybski 1933) explains our use of indexes to distinguish them.

SECOND, we can list marks of credibility: what are the characteristics of statements which are believable?

THIRD, there are credible core theses of economics which win nearly complete assent from economists. Economics(g) will be our tag for the credible core theses of economics; everyone who considers those theses carefully agrees they are correct. Examples are listed in the section “The Credible Core Theses of Economics.”

FOURTH, economics(g) is not trivial but has profound social importance.

Although they win nearly unanimous assent from economists and are a large part of the foundation of our material well-being, those core theses are not known to the public. The public sees economics as an activity full of controversy not credibility. In addition, however credible the claims of economics(g) and whatever long-run good fortune they promise, in the short-run their implications are disagreeable to the public; the common man resists becoming informed about them. So have some actors in history.

The explicit purpose of An Inquiry into the Nature and Causes of the Wealth of Nations was “to increase the revenue of the people” (Smith 1976 Book IV p 449). That remains an admired goal of many economists; few economists would wish to celebrate a contrary purpose as their own. Having considered whether economics is scientific this essay concludes that the best path to increase the revenue of the people is a wider understanding of economics(g), our credible core theses.

Science(g) and Economics(g)

“..... the validity of these different perspectives depends critically on what one means by being ‘scientific’.” quoted from the Call for Papers in Methodus December 1990 p89.
Any discussion of whether economics is scientific is largely verbal. The first definitions of science in any dictionary tell us about “knowledge obtained from study” and “systematized knowledge.” Presumably anyone agrees that economics is scientific in those meanings. It is later meanings in a dictionary’s list, references to physical laws and experiments, which is the subject of Methodus’ inquiry. To make any sense of the inquiry we need to have agreed on a meaning of “scientific.” (Cf. in Notes a comment on Karl Popper.)

Long ago Galileo was careful to state what he “mean(t) by being ‘scientific’.” Science(g) is a set of theses which have been stated as predictions of the results which will be found if tests are made. Over a period of time, many have made tests. All who have made tests agree with the theses proposed. Galileo recognized that it was reliability which made science a “new kind of knowledge” but not everyone has since. Often the significant adjective used to distinguish scientific is “objective”. Whether a thesis is reliable is testable; whether it is objective takes us away from Galileo’s “new knowledge” back to the Grecian disputes.

A difficulty in investigating whether economics is scientific is the failure to distinguish from scientific(g) several quite different kinds of scientific activity. In his properly well-regarded book The Structure of Scientific Revolutions, credibility is not one of Thomas Kuhn’s chief interests (Kuhn 1970). Kuhn is interested in investigative science, science(i), which he calls “normal science.” Science(i) proposes new hypotheses and suggests tests in order to establish new science(g). It cannot be reliable; mostly the claims of scientists(i) will come to be seen as mistaken or unimportant. Only a small part of science(i) ever becomes science(g).

In an interview Alan Sandage, the cosmologist, makes this point for us (Sandage 1991). “Everything is always in trouble at the frontier. Any science that is not in this trouble is dead.” Here Sandage would be re-worded: “Everything is always in trouble in science(i). Any science that is not in this trouble is science(g).

The student who is learning science learns it by studying “exemplars” (Kuhn 1970 p187) – unchallenged theses like Newton’s Second Law or Ohm’s Law; we are calling those science(g). Kuhn’s normal science, here science(i), excludes “exemplars” and excludes what engineers and technicians do; scientists(i) think of that as “hackwork” (Kuhn 1970 p 30).

In a subsequent newspaper debate, Kuhn maintained that science, meaning science unindexed, is “common sense” (Kuhn 1983). Any suggestion that science is “common sense” fails to wonder why Marx claimed his view was scientific, or why so many TV ads present “scientists” in support of the sponsor’s nostrum, or why this debate – about whether economics is scientific – is being staged in the pages of Methodus. About common sense you and I might have a considerable dispute; from Ohm’s Law all draw the same conclusion. About economics(g) we hope to have no disputes.

Presumably Kuhn would be respectful of the achievement of science(g): asked the same questions as were asked in the 17th century, the 20th century offers the same answers; the questions may have changed but not the answers. That is outside the scope of Kuhn’s book, but remarkable nonetheless.

“Scientific” is such a widely sought blue ribbon for only one reason: “scientific” connotes reliable knowledge, as Galileo suggested. The credibility of science is based on its being so reliable. Neither Marx nor TV advertisers seek the badge “common sense.” To attach the blue ribbon “scientific” to one’s own work may require some ad hoc definition of scientific (often “objective”) but definitions are dull; usually they can be avoided so that you can get the ribbon from many people, at least in the short run, without the reliability. One need not even phrase claims in testable form.

Science(g) theses are testable. The results of those tests vary as they are repeated and as different persons make the tests. The amount of variation which will occur can also be predicted, predicted accurately. In hard science, science(h), the variation found is small. As the variance found increases, science is softer.

Scientific exemplars and hackwork are used by doctors to slash the infant mortality rate. Using them, we build bridges, provide automobiles and radios. They allow our adult women to have many more teeth than their grandmothers had.

This essay intends to establish the credibility and importance of economics(g), economic exemplars and hackwork, as opposed to economics(i), what economists are publishing. It suggests noticing that nearly all 20th century economists have the same answers as Adam Smith had to several of the questions Adam
Smith asked. It does not suggest that economics(i) cease or even decrease; we cannot learn new economics(g) without it.

The research done by economists and reported in our journals is necessarily as disputations as is science(i). Prognoses about the business cycle are, at best, economics(i); many (Mayer 1989) have even argued that they are testable and have failed the tests. The public view is that “if you laid all the economists in the world from end to end, they wouldn’t come to one conclusion.” That view arises because so much of what the public hears from economists is about economics(i): what is happening to the business cycle? Little of what the public hears from economists is about economics(g): why is the common man in First World societies so much more well to do than the common man in other societies?

In the main economists(i) are academics. Their success depends on articles published, not on contributions to “the revenue of the people” (Smith 1976 Book IV p 449). Not many articles could be written about economic exemplars. “Nothing, after all, is quite as dull an area of intellectual activity as one in which everyone agrees with everyone else.” (Carson 1991) That has helped us forget the contribution of economics(g) to our material well-being.

Economics(g) is not science(g) but it is about as credible. Even among natural sciences there are widely accepted theses which are not testable. Credibility depends much more on openness to testing and on trying to state theses in testable format than it does on testing itself. Testing may be expensive or impractical.

The Marks of Credibility

Consider “genus” in the animal kingdom. Three species of North American hawks belong to the genus Accipiter. No tests can be offered that there is a genus Accipiter. We can test only for species: two hawks of different species will not produce fertile offspring (except in the rare circumstances nature always offers to prove that reality has no dichotomies). Although no tests can be made about hawk genuses, no one disputes that there is a genus Accipiter. The thesis is entirely credible.

Mathematics is not about evidence at all, is deductive rather than inductive. To make sense, the common phrase “mathematical science” must avoid any of the usual meanings of “science.” Mathematics requires axioms – unchallenged assumptions. Necessarily such axioms cannot be about “underlying reality” (Jacobi 1990) which is never, in its events, as tidy as axioms must be. Also, there is a sense in which mathematics is a tautology. (Hutchison 1960 p 28). But mathematics is fully credible.

When is a field of study – a set of theses or claims – credible? Credibility increases as more of the following attributes can be ascribed to the field of study, especially more of the earlier attributes on the list.

FIRST, the field of study is open to any questions. Perceptive questions are not seen as harassing but as the most likely source of progress. Members of the field of study try to state its theses so that they are open to questions and can be readily tested by others than those who state the theses. It is not always easy to make such tests; it is the openness to testing, not actual testing, which often underlies credibility. Often only those who challenge the thesis will undertake the tests, when the challengers are mistaken, we do not always learn of their failure.

SECOND, all members of a community widely perceived as “expert” agree with the theses. They offer the same answers to questions about the theses.

THIRD, their agreement has persisted over decades.

NEXT, as the number of theses proposed is smaller and the area of reality explained by them larger, the credibility of the theses increases.

The credibility of evolution increased when changes in DNA structure among different species were found to be related in the same way as the species had previously been thought to be related. At least partly, there began to be testable evidence of genus. Mancur Olson makes a particularly compelling statement of this attribute in The Rise and Decline of Nations (Olson 1982), and H.K.H. Woo expounds it cogently (Woo 1990).

THEN, as a field of study is better understood by its scholars they become able to offer explanations which are easier for willing non-scholars to understand. Among informed citizens there is more willingness to seek to understand – at least when they are not influenced by personal advantage, the “passionate confidence of interested falsehood” (Smith 1976 Book IV p 522).

FINALLY, what is believed by the well-informed, especially those of the well-informed who are open to questions, is more credible than what is believed by the credulous.
Hutchison’s *The Significance and Basic Postulates of Economic Theory* (Hutchison 1960) remains a stunningly pertinent investigation of the epistemology of economics. Hutchison notes his inability to find, in the classical literature, a list of the assumptions which “every man as soon as he hears them, admits ....” (Senior). If there is a credible core of economics, credibility requires that the list can be found and that it stands open to being stated in testable form. A list, intended to be illustrative not complete, of credible economics can be suggested.

**The Credible Core of Economics – Economics(g)**

“China seems to have ... long ago acquired the full complement of riches which is consistent with the nature of its laws and institutions. But this complement may be much inferior to what, with other laws and institutions, the nature of its soil, climate, and situation might admit ... The poverty of the lower ranks of people in China far surpasses that of the most beggarly nations of Europe.” (Smith 1976 Book I p 106)

As an immediate digression, lest he be misunderstood, Adam Smith believed that the “laws and institutions” of her society limited the achievements of the common man. Explicitly and more than once in his book he rejects the claim that Europeans are in some way superior. Europeans are the fortunate inheritors, from actors in their history, of their laws and institutions. Smith would have felt justified, not surprised, by the success of the Chinese away from their limiting “laws and institutions.”

The common man in First World societies is hugely better off (materially) than the common man in other societies. That advantage results from the superiority of their “laws and institutions” generally; conscientious timekeeping and good sanitary practices are examples of superior First World “laws and institutions” which are not economic. Germane here, the advantage also arises in the superiority of the following economic “laws” to contrary laws and institutions which are dominant in other cultures.

1. The greatest part of our material abundance results from the division of labor.
   “The greatest improvement in the productive powers of labor and the greater part of the skill, dexterity, and judgement with which it is .... applied (results from) the division of labor.” (Smith 1976 Book I p 7)

2. Following after the division of labor as an “improvement,” a matrix of material abundance, is the investment in capital goods.
   “As the accumulation of stock is previously necessary for carrying on (that) great improvement in the productive powers of labor, so the accumulation naturally leads to the improvement. The person who employs his stock in maintaining labor .... endeavors .... to furnish them with the best machines which he can either invent or purchase. .... The quantity of industry .... not only increases .... but, in consequence of that increase, the same quantity of industry produces a much greater quantity of work” (Smith 1976 Book I p 96).

3. Antonio, the Merchant of Venice, was onto the wrong source of material abundance. Not speculative shrewdness or good fortune but the investment in productive capacity intended to produce a return over a period of years is the hallmark of the capitalist success. People in all societies seek profit; only the capitalist idea seeks it in the long run.
   “The high rate of profit seems everywhere to destroy the parsimony .... natural to merchants. (Then) expensive luxury (seems) to suit better the affluence of (their) situation. But the owners of great merchant capitals are necessarily the leaders .... of every nation. If the (employer) is dissolve the (employee) .... will shape his life too according to the example which (the employer) sets; life too according to the example which (the employer) sets him. .... The capital of the country, instead of increasing, gradually dwindles away and the quantity of productive labor maintained grows less and less.” (Smith 1976 Book IV pp 127 – 8)

4. The free market is not a pretty human development but is essential to abundance. We cannot modify the laws of supply and demand except at great cost to our long-term good fortune.
   “(None of that) opulence .... is the effect of any human wisdom (but is) the consequence of a certain propensity in human nature .... to truck, barter, and exchange one thing for another.” (Smith 1976 Book I p 17)
Excluding the grossest deceptions, mutual gains result from voluntary exchanges at the
free market price.

5. Resources are scarce. We can never satisfy human wants. We must recognize that there are usually trade-offs, costs; we ignore them at peril to our well-being. Price is a necessary determinant of the efficient allocation of resources for production.

6. Just more than half a century ago John Maynard Keynes suggested that markets do not clear. Not all economists agree, but First World governments are usually Keynesian and the business cycle is demonstrably less severe.

An unhappy concomitant has been to transfer from kings to the common man the power to corrupt the currency; it is not clear that we common men will learn to exercise that power responsibly.

The sixth thesis is an illustration. It is one the author believes to be true but recognizes as economics(1), because not all economists agree.

For lack of space our list is incomplete; at least a half dozen theses could be added (Baumol 1988). But the list purposefully omits what Hutchison terms the “Fundamental Assumption” of classical economics: man is a rational maximizer (Hutchison 1960 p 83). When intended as a description of the real world that assumption is not credible, i.e. uniformly believed by economists. Indeed many economists including Hutchison find it absurd. It is, by the way, no part of Adam Smith.

We ought to recognize that no spiritual advantages – such as happiness – are necessarily associated with any material abundance. Further, there are substantial disadvantages associated with the system which achieves it. They are not less important because they are irrelevant here. It is nonetheless no small thing to have so greatly reduced poverty and to make claims of cause which are credible even when we are careful about methodology. (Boulding 1989)

The Revenue of the People

“The first test of a civilization is a decent provision for its poor.” Samuel Johnson.

“Nations (of about equal) skill, dexterity, and judgement ..... have followed different plans in the (“application of labor”) and the plans have not all been equally favorable to the greatness of (their) produce.” (Smith 1976 Plan of the Work p 3)

Karl Marx offers idyllic descriptions of how the world might be changed. Those descriptions HAVE changed the world not always, we are told, as Marx intended. His interest was to remedy economic injustice. In one famous idyll he has it that we would each be free “... to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticize after dinner, ... without ever becoming hunter, fisherman, shepherd, or critic.” (McLellan 1973) Marx seems never to have considered the effect on the division of labor and on the “revenue of the people;” Marxist societies have not had much revenue.

It is the credible core of economics which makes the First World “plan ..... favorable to the greatness of (our) produce” and the same credible core which makes economics the “dismal” science. Reality is justifiably unattractive to the common man; he prefers to worship idylls. (“... human kind cannot bear very much reality.” Eliot (1943) Many professors in our best colleges are among the common men who worship idylls. Marx and Thoreau were actors in history who worshiped idylls. (cf. just below)

Consider in turn the unattractiveness of each of the claims of economics (g). (The identifying numbers in this list relate to the identifying numbers in the immediately previous list of economics (g).)

1. Associated with the first claim is an explicit challenge to Walden: if you want Thoreau’s life, you must accept the poverty and bad health which accompany independence – except for those rare few who are blessed with outstanding marketable talent. Chaplin’s “Modern Times” draws thunderous acclaim still. Of those who laud it, who includes a warning about the large reduction in our per capita GNP implied by its point of view?

2. Associated with the second claim is an explicit challenge to “Small is Beautiful” and the family farm. Good wages and decent benefits will accrue to the worker only if she is lucky enough to be in a well capitalized job. Decent working conditions are much more likely to be found there.

We can provide the high school graduate with a tolerably abundant life only if we can arm her with sufficient capital. But the short-run result of increased capital is often decreased labor – experienced by the common man either as personal job loss or as the end of nepotic jobs for sons and nephews.

3. Probably we should ask for evidence that
speculative gains in the stock market contribute to the “revenue of the people.”
Suppose it were demonstrated conclusively that Keynes’ persuasive view of speculation in the financial markets is correct (Keynes 1936). How many brokerage houses, in order to shift investment to projects likely to increase the NNP, would support a 100% tax of gains made on sales of financial instruments owned less than one year? Is Wall Street willing to consider whether it serves the commonwealth or is its opinion determined solely by “the passionate confidence of interested falsehood?”

4. Main Street often forces our political institutions to repeal the law of supply and demand.
At the same time as “free markets” were being introduced to great acclaim in communistic Eastern Europe, they were being abandoned in capitalistic Eastern United States. Both New Jersey and Pennsylvania were instituting highly popular restraints on the half-free market in automobile insurance to make it even less free.
Simultaneously, the Republican President Bush was placing great pressure on oil companies to refrain from free market practices in gasoline retailing. The market will strike back, but who wants to hear that dismal truth?

5. Businesses which ignored the social cost of environmental degradation to make a profit in the short run have cost society enormously. If successful, environmentalists who seek zero environmental degradation will seriously degrade our well-being.

Conclusion
Economics (i) must continue to be an important source of new understanding but it will remain controversial. To the extent that it is used to predict the future it may be helpful but it can never be accurate; we cannot predict history (Davidson 1991). Economics (i) cannot be scientific (g) and cannot be credible.

Economics (g), the credible core of economics, is the barely recognized source of a considerable part of our considerable abundance. There might be even more abundance if we did not so often try to ignore its laws and institutions.

Notes
* Thanks are due to Dr. Thomas Meeks and Dr. David George for reading this paper and proposing several useful changes. Neither has offered any opinion about the claims or conclusions.
1. William J. Baumol and Alan S. Blinder (1988), Economics Principles and Policies. This text begins with “Ideas for beyond the Final Exam.” Some of the “ideaz” are about the trade cycle; several are undisputed core theses.
6. T.W. Hutchison (1960), The Significance and Basic Postulates of Economic Theory, Augustus M. Kelley.
9. Alfred Habdank Skarbek Korzybski (1933), Science and Sanity. In this book Korzybski suggests that, when the same string of letters is used with several meanings for example, “science”), each meaning be individuated with its own index — (g), (i), or (s) in this essay.
14. Mancur Olson (1982), The Rise and Decline of Nations, Chapter 1, especially Section III of that chapter.
16. Nassau Senior, Political Economy, 6th edition p. 5. This reference is copied from Hutchison.
19. Finally, Karl Popper proposes a sceptical approach to induction and science. To address his proposal would require more space than is available. Presumably it is obvious that this essay is not sympathetic to Popper. Scepticism is not credible because the behavior of sceptics isn’t change to reflect their claims.
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