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Abhandlungen

The Financial and Economic Crisis and the Aberrance of Economics

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Abstract

Positivism-empiricism-falsificationism has become the 'state-of-the-art' methodology of economics. In this article it will be argued that this approach (1) suffers from (logical) deficiencies when applied to the science of human action and (2) has helped legitimizing, and putting into practice, policies that have actually contributed greatly to bringing about the latest financial and economic crisis. The 'Austrian', or to be more precise: the 'Misesian', method (praxeology) will be outlined as the proper methodology in the field of social science. (A2, B20, B41, B50, B53, C10)

Zusammenfassung

Die Finanz- und Wirtschaftskrise und die Verirrung der Wirtschaftswissenschaft

Der Positivismus-Empirismus-Falsifikationismus ist zur allgemein akzeptierten Methodologie der Wirtschaftswissenschaften aufgestiegen. Im Folgenden wird argumentiert, dass (1) dieser Ansatz (logische) Defizite hat, wenn er auf das menschliche Handeln angewendet wird, und (2) dazu beigetragen hat, Politiken zu legitimieren und zu implementieren, die maßgeblich zur jüngsten Finanz- und Wirtschaftskrise beigetragen haben. Der Ansatz der ‚Austrians' – oder genauer: der Ansatz von Mises (Praxeologie) – wird als die geeignete und logisch-konsistente Methodologie für die Wissenschaft des menschlichen Handelns rationalisiert. (A2, B20, B41, B50, B53, C10)

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> "Human reason so delights in constructions that it has several times built up a tower, and then razed it to examine the nature of the foundation. It is never too late to become wise; but if the change comes late, there is always more difficulty in starting a reform."
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> *Immanuel Kant* (1989), Prolegomena, p. 6.

> "It is this assessment of economics as an a priori science, a science whose propositions can be given a rigorous logical justification, which distinguishes Austrians, or more precisely Misesians, from all other current economic schools."
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> *Hans Hermann Hoppe* (2007), pp. 8–9.

I. Introduction

This paper makes an attempt to trace back the root cause of the international financial and economic crisis to the methodology of positivism-empiricism-falsificationism, which has become 'state-of-the-art' in economics. The argument will start with critically reviewing positivism-empiricism-falsificationism, pointing out that this methodology has logical deficiencies and encounters complications if and when applied in the field of economics. In the constructive part of this article the Austrian method will be put forward, most notably developed by Ludwig von *Mises* (1881–1973), as the appropriate (or: intellectually convincing) methodology of economics. The Austrian, or to be more precise: 'Misesian', method provides a logical-deductive explanation why today's fiat money regime must lead to financial and economic crises – a theoretical insight which cannot be derived from economics under the tutelage of positivism-empiricism-falsificationism. The author of this paper is fully aware of its insufficiency. However, it nevertheless may help pointing out important methodological aspects that need to be addressed in a renewed debate about the proper methodology in the field of economic science.

II. Positivism-Empiricism-Falsificationism

The state-of-the-art methodology in today's mainstream economics is positivism-empiricism-falsificationism. Let us briefly explain these terms. Positivism can be described as a scientific ideology, in particular holding that (1) valid knowledge about reality can only be found in scientific knowledge, and (2) that scientific knowledge can only be obtained

by the method of empiricism.[2] Empiricism is a scientific doctrine according to which scientific knowledge about reality can only be acquired and validated through sensory experience (that is observation, measurement, etc.). The term falsificationism basically refers to "critical rationalism" as defined by Karl Raimund *Popper* (1902–1994): meaning, to put it simple, that theories can be tested and falsified, but can never be logically verified through experience.

The very idea of applying the methodology of positivism-empiricism-falsificationism to social science was successfully propagated in particular by Milton *Friedman* (1912–2006) in his article The Methodology of Positive Economics (1953). The latter is presumably one of the most widely debated and certainly most influential papers on the methodology in the field of economics. It brought a profound and actually dramatic change to the science of economics: it made economics adapting a methodology that was so far reserved for natural sciences. In what follows a critique of empiricism will be put forward, laying the groundwork for also criticizing positivism and, later on, falsificationism.

III. A Critique of Positivism-Empiricism

Empiricism holds two claims. First: Knowledge about reality comes only from sensory experience. Second: Only observation is the source for judging the truth value of (economic) theories. That said, the empiricist doctrine denies the possibility of a priori knowledge about reality, refuting the very idea of there being valid knowledge about reality which can be validated independent of observation.[3] In what follows, four critiques will be leveled against empiricism.

1. Empiricism is a self-contradictory doctrine: Empiricism is a logically contradictory and self-defeating doctrine, at least in the field of social sciences. The empiricist claim is that all economic events are only hypo-

[2] See, for instance, *Hayek* (1952), The Counter-Revolution of Science, esp. Part Two, pp. 183.

[3] It should be mentioned here that a priori knowledge has nothing to do with the assumption of "innate", or "intuitive" knowledge. In epistemology a priori knowledge denotes how to validate, or ascertain, knowledge. See *Hoppe* (2010), A Theory of Socialism and Capitalism, p. 130-1; also *Kant* (2007), Critique of Pure Reason, pp. 37–43. The laws of thought are examples of a priori knowledge: If anything is *A* it is *A*; nothing can be both *A* and not *A* (law of contradiction). Or: No two objects can occupy the same place. These examples of a priori are conditions for valid thinking.

thetically true. Upon closer inspection this empiricist claim – namely that there is only hypothetically true knowledge about reality – is contradicted by the message of the empiricist proposition itself. For if the empiricist proposition (namely that all economic relations are only hypothetically true) is regarded as itself being merely hypothetically true, it would not qualify as an epistemological pronouncement. In other words: Empiricism would not provide any justification whatsoever for its claim that economic propositions are not, and cannot be, non-hypothetically true (that is categorically, or a priori, true). If, however, the empiricist claim is categorically true, it would belie its own thesis, namely that there is only hypothetically true knowledge – thereby making room for a discipline as economics claiming to produce a priori valid knowledge about reality.

With the same logic we can also (albeit rather briefly) criticize positivism, which claims that knowledge is either analytical or empirical, and only the latter, empirical knowledge, provides true knowledge about reality. Analytical knowledge, in contrast, is just verbal convention, according to positivism. Positivism's claim that only empirical knowledge is true knowledge about reality is thus self-contradicting – it is a claim which cannot be justified by positivism itself. By making this claim, it actually takes recourse to knowledge not derived from experience (namely a priori knowledge).

2. Empiricism leads to skepticism/relativism: Empiricism maintains that an economic proposition can never be validated once and for all with certainty, as the economic hypothesis is forever subject to the outcome of future experience. If, for instance, data testing confirms a hypothesis, empiricism would say that it is not validated (once and for all), as there remains the possibility that the relationship(s) under review might be falsified by future experience. If, however, data testing suggests a rejection of the hypothesis, it would by no means prove that the hypothesized relationship could never be observed through future testing, and so it is not refuted either. Empiricism is thus expressive of skepticism – according to the motto: anything goes, nothing can be known with certainty, and anything might be possible in the realm of economics. Empiricism invites relativism in economics.

Whereas the empiricist approach might be (politically) harmless in the field of natural sciences, its consequence in social sciences is a different matter. For instance, if a hypothesis predicts effects that are widely said to be desirable, the supporters of empiricism have a justification for trying it out and see what happens. If the outcome is not as hypothesized,

empiricism would not allow rejecting the hypothesis as being wrong. In fact, empiricism allows immunizing the hypothesis against critique by saying that the falsified experiment was accidental, suggesting that ongoing experimenting would prove its truth. The empiricist-positivistic doctrine can therefore be expected to be embraced by those favouring social engineering: the group of people – those in government and those who provide intellectual legitimization for their action – wishing for expanding government (at the expense of the free market). In other words: The methodology of positivism-empiricism-falisficationism has, to put it mildly, a potential for political misuse.

3. The constancy principle is inconsistent with empiricism: There is another logical inconsistency of empiricism, namely the (implicit) assumption of the constancy principle. The latter denotes "the conviction that observable phenomena are in principle determined by causes which are constant and are time-invariant in the way in which they operate (…)."[4] However, the constancy principle cannot be justified by empiricism itself. If, for instance, the constancy principle is assumed to be non-hypothetically true, it contradicts empiricism's own thesis (according to which there is only hypothetically true knowledge). If, in contrast, the constancy principle is assumed to be only hypothetically true, then it cannot claim to qualify as an epistemological pronouncement; it would be an intellectually void pronouncement. What is more, the validity of the constancy principle cannot be proofed or disproved once and for all by experience – a claim which is, as was shown earlier, implicitly made by empiricism.

4. Empiricism suffers from the problem of induction: Empiricism considers sensory experience as being the only authority of validating the truth claim of economic theories. This claim of empiricism leads to the well-known induction problem. Induction means that observations of particular events lead to universally applicable conclusions. However, there is no logical necessity that a relation observed in the past will necessarily be observable in the future. – In view of the latter assertion the reader may say: Well, the critique applies to classical empiricism. But such a critique is no longer relevant, as classical empiricism has been replaced by Popper's "critical rationalism". In what follows it will be argued that Popper's critical rationalism does by no means solve the deficiencies of classical empiricism but creates new, and perhaps even more severe, problems.

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[4] *Hoppe* (2006), Is Research Based On Causal Scientific Principles Possible in the Social Sciences?, p. 298.

IV. A Critique of Popper's "Critical Rationalism"

Popper's critical rationalism – which has become the widely accepted methodology in today's mainstream economics – seems to have overcome the deficiencies of classical empiricism, in particular the induction problem.[5] Critical rationalism does no longer seek to verify a hypothesis by empirical evidence, as classical empiricism does. In fact, Popper took a skeptical view about Hume's stand on induction. What Popper suggested was the idea of falsification. According to falsification, a hypothesis is to be rejected if and when it is contradicted by empirical evidence. Falsification is Popper's response to the insight that it is impossible to verify a hypothesis through the method of induction. Once a hypothesis is refuted by empirical evidence, it has to be replaced by a newly formulated hypothesis, so Popper. Critical rationalism, it is said, thereby encourages scientific progress: through "trial and error" bad theories are replaced by good theories. In what follows, however, quite some criticism will be leveled against Popper's critical rationalism – criticism that should apply to both "dogmatic" (or: "naive") falsificationism as well as "enlightened" falsificationism.

1. The logical inconsistency of justifying falsification: Popper's critical rationalism sees empirical evidence as the point of reference against which a hypothesis can, or cannot, be falsified. In this respect critical rationalism doesn't differ from empiricism. In other words: Critical rationalism is grounded in empiricism, which considers observation as the only source of knowledge about reality, a scientific doctrine that is logically inconsistent and self-defeating, as was pointed out earlier. And another problem arises here: How can falsificationism be justified? Popper provides a logical explanation, taking recourse to the modus tollens.[6] This is

[5] See, in particular, *Popper* (2002), Conjectures and Refutations, in which he develops the ideas underlying and determining his critical rationalism approach. For a critique of Popper's critical rationalism see, for instance, *Hoppe* (1989), In Defense of Extreme Rationalism: Thoughts on Donald McCloseky's The Rhetoric of Economics, esp. footnote 18.

[6] Modus tollens (which can also be called the "mode of denying") is a form of deductive inference widely used by Popper. The argument (presented in the most simplistic way) goes like this: "If *A* is a bird, *A* has wings". From the observation "*A* has no wings" we can thus conclude "*A* is not a bird". For a general explanation see *Nagel/Cohen* (2002), An Introduction To Logic And Scientific Method, Chapter V, esp. 96–100. However, there is a serious weakness of modus tollens: It is applicable to the deductive science of theoretical physics. It does not necessarily fit the historically contingent nature of, say, human history. The reason is that any

a rather remarkable line of argumentation. Because by arguing this way, Popper assumes that there is true a priori knowledge about reality – namely logic, or logical inference, for that matter. It is not hard to see the ensuing logical inconsistency of this line of argumentation.

Logic – the autonomous science of valid inference – is a priori knowledge (such as, for instance, the law of contradiction or the law of the excluded middle). It is knowledge about reality independent of experience. Critical rationalism maintains, however, that there is no once-and-for-all true, or non-hypothetically true, knowledge about reality. It maintains that knowledge can at best be considered non-falsified (whereas verifying a hypothesis is impossible). To make this claim, however, falsification (saying that there is no non-hypothetically true knowledge) must take recourse to a priori knowledge – thereby denying what is actually says (namely that there is no once-and-for-all true knowledge).

2. The problem that observation is theory dependent: There is another problem with critical rationalism. It is an indisputable insight that there is no "pure" observation, or experience; this insight dates back to, say, Immanuel Kant (1724–1804), and it has ever since been upheld by leading epistemological scholars.[7] There is no "pure" observation because observation is (and must be) theory dependent. As theory pre-determines observation, the question arises: How do we know that the theory (pre-)determining observation is correct? To make things even more difficult: Given that theories change over time, observations should change over time, too. Observations are therefore not time-invariant should theories change over time. This is a pretty serious problem of critical rationalism: It claims authority for validating the truth claim of theories by taking recourse to observation. However, one cannot be sure about the truth value of observation, given that it depends on (changing) theories. These theories cannot be considered "true" once and for all, according to critical rationalism, but only as being not falsified (so far). It therefore becomes obvious that the idea of using observation for falsifying or not falsifying theories does not hold any water. That said, Popper's critical rationalism is not at all a solution to the problems related to classical empirism: "(I)t is only fair to say that it is Popper who con-

observable state of affairs must be logically entailed by the covering law. See, for instance, *Rieppel/Rieppel/Rieppel* (2006), Logic in Semantics, p. 187.

[7] For an insightful discussion in this context see, for instance, *Hartwig* (1977), Kritisch-rationale Methodologie und ökonomische Forschungspraxis, pp. 86–100, esp. pp. 95.

tributed more than anyone else to persuading the scientific community of the modernistic, empiricist-positivist worldview."[8]

V. The Austrian Critique

Ludwig von Mises (1881–1973), the dean of the Austrian economics, has formulated a critique against applying positivism-empiricism-falsificationism to economics – a critique that goes well beyond of what has been said so far. Mises explained why the methodology applied to natural science is inappropriate for economics, and he called for methodological dualism: meaning that the methodology of economics must be different from the one applied to natural sciences.[9] In natural sciences, Mises says, one deals with unmotivated objects such as, for instance, stones, planets, atoms, etc. The latter do not have preferences, they do not act purposefully, they do not choose among alternative modes of action. This is, of course, radically different from social sciences, which deals with acting human beings. Human beings have preferences, they learn, adopt new values (every day), change their minds.

Peoples' action cannot therefore be slotted and forecast as can the reactions of unmotivated objects. This is a very important insight, especially when it comes to methodological issues in the fields of human action. Historical events of acting people are not homogeneous (and thus comparable). In fact, they are unique records of human action. They are the resultant of many, and presumably changing, causal factors.[10] It is impossible to test an economic theory (say: the theory that if the quantity of money rises, prices go up) by checking it against homogenous bits of uniform events. There are no such uniform events. The observation of changes in the quantity of money and consumer prices in, say, the first quarter of 1972 in the US, is *not* comparable with the observation of changes in the quantity of money and consumer prices in, say, the first

[8] *Hoppe* (1989), In Defense of Extreme Rationalism: Thoughts on Donald McCloskey's The Rhetoric of Economics, p. 208, footnote 18.

[9] See *Mises* (1957), Theory & History, pp. 1–2; also the foreword to the book, written by *Rothbard*, pp. xi–xix.

[10] This stands in sharp contradiction with Popper's requirement of reproducible occurrences (*Popper* (2002), The Logic of Scientific Discovery, p. 66): "We say that a theory is falsified only if we have accepted basic statements which contradict it … This condition is necessary, but not sufficient; for we have seen that non-reproducible single occurrences are of no significance to science. Thus a few stray basic statements contradicting a theory will hardly induce us to reject it as falsified."

quarter of 2013. The empirical researcher would be misled to regress, say, changes in the quantity of money on the changes in consumer prices as suggested by time series analyses. These occurrences are not reproducible, as required by critical rationalism. Such a testing procedure would, of course, also be subject to the criticism leveled against empiricism and critical rationalism. Historical data can serve as an illustration of economic theories but cannot prove or disprove their truth value.

VI. Economics as A Priori Science

In view of what has been said so far, it is now high time to move on to the constructive part of the paper – which deals with the Austrian, or Misesean, methodology of economics. In view of the deficiencies of positivism-empiricism-falsificationism, Mises reconstructed in the late 1920s/early 1930s the science of economics as a logical-deductive science (which had actually been common wisdom in the 19th century). Mises's called his methodological approach praxeology – the logic of human action. At its heart is the axiom of human action. The latter is not just an arbitrarily set axiom. To Hans-Hermann Hoppe it is an a priori synthetic proposition, as Immanuel *Kant* put it.[11] The axiom of human action is irrefutably true: one cannot deny it without causing an intellectual contradiction (that is one cannot say that one cannot act). Most importantly, the axiom of human action allows deducing a number of true statements.

For instance, values, causality, ends, means, choice, profit and loss, time, preference, time preference, the law of diminishing marginal utility and private property – they are all categories implied in the axiom of human action. Mises formulated his approach as follows: "Praxeology is a theoretical and systematic, not a historical, science. Its scope is human action as such, irrespective of all environmental, accidental, and individual circumstances of the concrete acts. (…) Its statements and propositions are not derived from experience. They are, like those of logic and mathematics, a priori. They are not subject to verification or falsification on the ground of experience and facts. They are both logically and temporally antecedent to any comprehension of historical facts. They are a necessary requirement of any intellectual grasp of historical events."[12]

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[11] A highly instructive read to *Kant's* Critique of Pure Reason (2007) is the Introduction of Marcus *Weigelt*, pp. xv–lxix, esp. pp. xxxvii–lvii.

[12] *Mises* (1996), Human Action, p. 32.

One may object here: Hasn't Popper actually rejected Kant's concept of a priori synthetic propositions? Doesn't this show that Mises's praxeology rests on a misguided intellectual basis? The answer is: No. Popper rejects Kant's concept of a priori synthetic propositions because, in view of Popper, Kant tried to justify the 'principle of universal causation' (as he put the principle of induction)[13] by arguing that it would be "valid a priori". Popper didn't think that Kant's justification is successful.[14] His rejection rests on two factors. (1) Popper refers to his own 'fallibilism' – which is indeed inconsistent with a priori synthetic knowledge in principle. By doing so he holds that there are no non-hypothetically true propositions – and this he claims with apodictic certainty. Isn't this an open contradiction? I would say it is, and so Popper's 'fallibilism' argument wouldn't hold any water. (2) Popper uses Kant's a priori justification of Newton's laws (as argued in Metaphysical Foundations of Natural Science (1786)) as evidence that Kant's claim of unfalsifiable synthetic a priori statements is untenable.[15]

It may well be argued that Popper has misinterpreted Kant. In any case, the really important input to this debate comes from Mises. It was Mises who lent logical support to Kant's claim that the principle of causation is a priori.[16] Mises showed that causation is a category of human action, that causality is logically implied in the irrefutably true axiom of human action.[17] Human action is purposeful action, where man employs means to attain ends: "The category ends and means presupposes the category of cause and effect."[18] Where man does not see any causal relation, man could not act – and this is impossible to think, as the axiom of hu-

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[13] The category of 'causation' is a hotly disputed one. To Carl Menger, for instance, causation was a priori (although he didn't use the term): "All things are subject to the law of cause and effect. This great principle knows no exception, and we would search in vain in the realm of experience for an example to the contrary. Human progress has no tendency to cast it in doubt, but rather the effect of confirming it and of always further widening knowledge of the scope of its validity. Its continued and growing recognition is therefore closely linked to human progress." *Menger* (2007), Principles of Economics, p. 51.

[14] See *Popper* (2002), The Logic of Scientific Discovery, p. 5–6.

[15] See in this context *Popper* (2002), Conjectures and Refutations, pp. 124–129.

[16] In the introduction to his Critique of Pure Reason (1787), *Kant* titled chapter 3: "Philosophy Requires a Science That Determines the Possibility, the Principles and the Range of All A Priori". For the science of economics, Mises has done just that.

[17] See *Mises* (1996), Human Action, p. 22–23.

[18] Ibid., p. 22.

man action shows. We can thus conclude that critical rationalism does not (1) solve the (logical) deficiencies of empiricism and (2) refute Kant's category of a priori synthetic knowledge (and thus praxeology).

VII. Explaining the Financial and Economic Crisis

In view of the international financial and economic crisis, positivists-empiricists-falsificationists would (hypothetically) consider market failure, insufficient regulation, and poor macro-policies etc. as possible explanations of the malaise. They would presumably recommend additional government actions for correcting market failure, improving upon existing regulation, seeking better and more "aggressive" policies, etc. for solving the crisis. Such a chain of reasoning doesn't come as a surprise: Once the positivist-empiricist-falsificationist doctrine has been adopted, no principled case against any 'new policy experiment' (such as, for instance, lowering of the interest rate to zero for increasing economic growth and employment) can be made.[19] Especially so if and when the predicted effects of a policy measure sound benevolent and beneficial. Once a policy recommendation sounds promising, it will be put into practice and tried out. And should the policy fail to achieve its promised result, one can immunize one's own theory against criticism quite easily (as was explained earlier).

The proponents of government market interventionism can blame any policy failure on 'accidental circumstances', or factors which have so far been uncontrolled, and which, once controlled, will allow policy making to bring about the promised result. In other words: The positivist-empiricist-falsificationist doctrine in economics can quite easily legitimize bad policies, thereby perpetuating government actions which do not, and never can, yield the promised results. The reaction to the international financial and economic crisis is actually a case in point: Mainstream economics holds on to the interpretation that government market interventionism (central banking, government regulation, deficit spending etc.) means anti-crisis policy – rather than making things even worse. The praxeological research program comes to a diametrically opposed diagnosis, though. It identifies government market interventionism in the field of monetary affairs as being responsible for having caused the financial and economic crisis in the first place.

[19] See *Hoppe* (2006), Austrian Rationalism in the Age of the Decline of Positivism, esp. pp. 360–363.

The Austrian methodology would reveal – on the basis of rigorous theoretical reasoning – that issuing fiat money (which comes with central banking and fractional reserve banking, causes, and necessarily so, inflation, malinvestment –, and "boom-and-bust" cycles. In fact, a praxeological analysis shows that a fiat money induced boom is unsustainable and must be followed by bust. Policy attempts to "fight" the approaching bust by, for instance, an even more expansionary monetary policy won't solve the crisis but will make matters worse.[20] Mises put it succinctly: "But the boom cannot continue indefinitely. There are two alternatives. Either the banks continue the (circulation, *TP*) credit expansion without restriction and thus cause constantly mounting price increases and an ever-growing orgy of speculation, which, as in all other cases of unlimited inflation, ends in a "crack-up boom" and in a collapse of the money and (circulation, *TP*) credit system. Or the banks stop before this point is reached, voluntarily renounce further credit expansion and thus bring about the crisis. The depression follows in both instances."[21]

From a praxeological analysis viewpoint government policies (such as deficit spending, zero interest rates monetary policies and bailing out banks) are not "rescue measures". On the contrary, they must be considered economically destructive. Today's methodology of positivism-empiricism-falsificationism is, from the Austrian point of view, an intellectual aberrance – because of its inherent logical deficiencies and, in addition, inappropriateness in the field of human action. In that sense, a revival of a Methodenstreit seems to be required to let praxeology compete against the positivist-empiricist-falsificationist doctrine which has become dominant in mainstream economics. In that sense, a Methodenstreit may be seen a productive contribution in the spirit of Immanuel Kant, who once

[20] For an explanation see, for instance, *Mises* (2006), The Trade Cycle and Credit Expansion: The Economic Consequences of Cheap Money. Here he concludes (p. 202): "(A)fter a long period of artificially low interest rates, the question is not how to avoid the hardships of the process of recovery altogether, but how to reduce them to a minimum. If one does not terminate the expansionist policy in time by a return to balanced budgets, by abstaining from government borrowing from the commercial banks and by letting the market determine the height of interest rates, one chooses the German way of 1923." On the devolution of money see *Rothbard* (1990), What Has Government Done to Our Money?

[21] *Mises* (1998), Interventionism, p. 40. By circulation credit (Zirkulationskredit) Mises refers to bank credit through which the quantity of money is increased. Commodity credit (Sachkredit) denotes the form of bank credit through which existing money balances are transferred from the saver to the investor.

noted: "It is never too late to become wise; but if the change comes late, there is always more difficulty in starting a reform."[22]

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[22] *Kant* (1989), Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können, p. 6; own translation.

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