

VU Research Portal

The Neo-Austrian view on interest

Zuidema, R.P.

1990

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Zuidema, R. P. (1990). *The Neo-Austrian view on interest*. (Serie Research Memoranda; No. 1990-38). Faculty of Economics and Business Administration, Vrije Universiteit Amsterdam.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

1990-38

Faculteit der Economische Wetenschappen en Econometrie

ET

05348

SERIE RESEARCH MEMORANDA

THE NEO-AUSTRIAN VIEW ON INTEREST

R.P. Zuidema

Researchmemorandum 1990-38
august 1990

vrije Universiteit

amsterdam





THE NEO-AUSTRIAN VIEW ON INTEREST *)

R.P. Zuidema

1. Introduction

Austrian Economics flourishes again. From the 1940's till the end of the 1960's not much was heard of Austrianism. It had become fashionable to consider this way of economic thinking a mere curiosity (although some generously admitted that it might contain a core of truth.) This period of a relatively subdued existence came rather suddenly to an end. Recently a number of scholars both in Europe and in the United States suggested (perhaps to the surprise of contemporary economists) that Austrian economic ideas and concepts ought to be taken seriously.

In fact, the interpretation of economic phenomena as presented by the so-called Neo-Austrians is not always similar to what had been taught by the founding fathers of the Austrian School. This reappraisal sometimes also leads to the presentation of different analyses by various "Neo-Austrians". More in particular, that is the case in the field of interest theory; which is the subject of this paper.

Two interpretations seem to compete for recognition as a modern explanation of interest in the Austrian tradition. I shall consider both explanations more closely and ascertain as to how far these differ from the original positions taken by the Austrian School. Furthermore, I shall discuss whether those two rivaling modern interpretations can be integrated, as has been suggested. Finally, I shall examine how such a neo-Austrian view of interest fits in with mainstream economics, and what relevance may be attached to it for the clarification of some capital controversies which have risen.

*) This paper is an elaboration of an earlier publication : "Intrest en de hogere produktiviteit van omwegproduktie" (in: Maandschrift Economie, 1990, nr. 2, pp. 93-104), and is to be presented at the I.S.I.N.I.-Congress, Paris, 27-29 August, 1990.

Some introductory remarks must be made. In relation to the Austrian view on "Capital and Interest" the name of Boehm-Bawerk is usually mentioned first. As one of the oldest generation of Austrian economists he wrote a major publication on this subject. His ideas concerning a period of production, during which original factors of production ripen into final products, lay at the foundation of both his concept of capital and his explanation of the rate of interest. According to Boehm (1921) a certain (positive) rate of interest could be explained in principle on the basis of two so-called "psychological" reasons only. None the less, the higher productivity of "roundaboutness in production" may be regarded in his opinion as a "third" reason for a positive rate of interest. In a modern industrial society, next to time-preference, this third reason is in fact of paramount importance. In this way Boehm presented an Austrian view on interest, and defended it against the criticism presented i.a. by Clark. The latter, known for his formulation of a neo-classical point of view regarding interest, stated it to be equal to the marginal product of a factor of production called "capital".

Although it will be elaborated later on in this essay, it should already be stressed now that Boehm gave a slightly different logical status to the presumed causes for the occurrence of interest. Essential for a certain rate of interest to emerge are various factors governing the time-preference of people. On the other hand, attention is also given to the technical conditions of production in a modern economy because of their influence on the level of the rate of interest. Furthermore it should be noted that, in this approach, monetary aspects have no specific bearing on the rate of interest. Therefore the analysis is confined to an exposition of interest in real terms.

2. Time-preference cum productivity

At present in Europe one particular group of economists endeavours to present a modern Austrian approach in this field, more or less in the footsteps of Boehm-Bawerk. Among others Faber and Bernholz in their modern Austrian theory of interest use "time-preference cum productivity" as a kind of password (see e.g. Bernholz c.s., 1978). They choose as a starting point for their investigation, within a multi-period context, a certain configuration for an economy in which production possibilities are used efficiently, in such a way that in each and every period of the foreseeable future the same amount of consumption goods will be produced.

For their definition of time-preference they refer to a situation in which there is an equal provision with consumption goods over the whole time interval. Time-preference is then called neutral if there is no inclination to trade more than one unit of a consumption good in the future for an additional consumption good in the current period. Time-preference is called positive (or negative) if under the mentioned circumstances there is an inclination, to give up more (or less) in the future in exchange for something today. They assume that generally time-preference is non-negative and will mostly be positive on account of the "impatience to consume". In case of a further substitution of present for future goods (or vice versa), the inclination to do so will diminish, and because of that intertemporal indifference curves will show the usual curvature.

As indicated, in production they assume for a start such a use of resources in the economy that the same (maximal) amount of consumption goods will be produced in all periods. That refers to a specific

production programme which, given the present state of technology, is efficient and feasible - dependent on the availability of primary factors of production and the available stock of capital goods. Next to that particular production programme there could be certain other production programmes which may be considered as alternatives. In this respect a framework of comparison is used which is derived by cutting Boehm-Bawerk's so-called "Law of the Superiority of Roundaboutness" into its two constituent parts. Then "superiority" exists if there is some other production programme which, with regard to the whole period considered, results in more consumption goods. "Roundaboutness" exists if in some other production programme less consumption goods will be produced in (only) certain earlier periods, and more in (only) certain later periods. Excluding a situation of "capital saturation" (in the sense of an abundant presence of capital goods right from the beginning), their opinion is that in general there will in practice always be the possibility of a change to a superior but more roundabout production programme.

Against this background the authors in this group try to develop propositions concerning the sign and level of the rate of interest (in various models of differing complexity). Their kind of reasoning would be applicable both in a centrally planned economy and in the setting of a market economy. For instance, they demonstrate that in a stationary equilibrium a positive rate of interest will be implied, if the aforementioned premises are valid. This could be illustrated graphically, as follows, for a two-period model in terms of present and future consumption goods. An intertemporal indifference curve is drawn tangent to an intertemporal transformation curve under an angle of somewhat more than 45 degrees. At the point of tangency equal amounts of present and future goods (on the horizontal and vertical axes) will be combined. As the marginal rate of time-preference and that of intertemporal transformation are equal in such a case, the interest rate can be obtained through a deduction of 1 from that equilibrium rate. The authors conceive of an interest rate as being enclosed in the present, relative price of consumption goods for different periods, in the sense of an "own rate of interest".

From this observation, as a first approximation, one may proceed in several directions. If there is a rather weak time preference, net investment will take place, whereas the possibility of desinvestment cannot be excluded if the opposite is true. However, a positive rate of interest may also be expected in those two cases. The presumed existence of a possibility to opt for a superior but more roundabout production programme is, in this whole approach, on the same footing as the nature of time-preference in relation to the level of interest. However, their exposition of relevant technical conditions is not necessarily connected with some concept of a period of production, in terms of which Boehm-Bawerk had spoken (with his accompanying exposure of capital goods as intermediate products).

3. Pure time-preference theory

Also outside Europe and particularly in the U.S. a number of economists have been inspired to continue with an Austrian way of economic analysis in the last decades. However, their original source of inspiration is not so much Boehm-Bawerk as Menger, the oldest of the founding fathers of the Austrian School (Zuidema, 1988). Fetter also could be named here as already an early Austro-American. This group of neo-Austrians is strongly influenced by the presentation and reformulation of the Austrian heritage presented by Mises. After his migration to the States he became especially known for his (re-

edited) treatise on 'Human Action'(1949), in which he pleaded for a form of praxeology in economics.

With regard to capital and interest Mises held to a somewhat different view from Boehm-Bawerk. Later in his life he endorsed ideas closer to those of Menger. The latter's distinction between goods of lower order and those of higher order, for instance, is considered by him to be of great importance. Goods of higher order derive their value from goods of lower order which will be produced by means of them. This implies that the total value of the output of production, ultimately consumption goods, can be anticipated in the remuneration of resources and could be fully distributed over those inputs.

With regard to the phenomenon of interest no other causes than those related to the time-preference of economic subjects should be considered. Boehm-Bawerk wrongly suggested a third and separate cause for interest. In doing so he in fact turned to a "productivistic" explanation, which had been so brilliantly refuted in his own writings before. Therefore Fetter (1927) agreed with the first and second reason for interest, brought forward by Boehm, but was surprised by the introduction of the third reason which he considered ill-fitting and did not wish to endorse at all. The only truth according to Mises (in line with Menger and Fetter) is : given a certain rate of interest there must be discounted accordingly, in case of an immediate remuneration of present inputs, i.e. with the present value of future outputs. This of course is the opposite of introducing a separate factor of production called capital here and remunerating it with interest, which Boehm had already correctly denied. Consequently there is no point in pursuing with a concept of a period of production here, which also easily could be interpreted as a kind of substitute for a factor of production in relation to interest.

Thus Mises in various writings succeeded in distilling certain basic ideas from the "non-subjective, empirical and technical garb", in which they had been presented in Boehm's exposition (Kirzner, 1976). That cleared the way for the further development of what could be called a pure time-preference theory (PTPT) of interest. A general understanding of the phenomenon of interest can be reached as soon as it is recognized that interest always forms the expression of time-preference. The universal character of human time-preference, however, had rather poorly been expressed even in the two "psychological" reasons of interest put forward by Boehm. In the opinion of this group of Neo-Austrians, notwithstanding their appreciation of Boehm's efforts for an Austrian approach to capital and interest, some analytical cleaning-up is therefore needed to get a clear picture of what a consistent Austrian interest theory should be.

The PTPT ultimately rests on that Mengerian insight "which assigns economic significance to resources only insofar as they contribute to final consumption output" (Kirzner, 1983). At the level of the economy this translates "into the thesis that distributive shares of aggregate income to the owners of factors are to be understood as the market-determined expression of the ways in which consumers evaluate the productive usefulness of the different resources". Also in a pure exchange economy it would already be conceivable that interest receipts would arise without production of any kind taking place. In a world with production "interest payments will emerge, in competitive markets for borrowed capital, out of the interplay of the demand and supply for loans. Both the demand and the supply sides of this market, however, are similarly governed by time-preference considerations".

In regard to the recent "capital debate" Kirzner is of the opinion that, beside the view of neoclassical economists and that of their neo-Ricardian radical opponents, the approach from an Austrian background

(if properly understood) may certainly be regarded as a separate third view. It is not surprising that he then especially refers to the PTPT. But, for the sake of an enrichment of that latter alternative, the question should first be discussed what chance there is to connect this PTPT with the other neo-Austrian analysis of interest. In doing so an integrated neo-Austrian theory of interest could be drafted as the proposed "third" view for a further evaluation and solution of that debate on capital.

4. An integrated Neo-Austrian theory

Let us therefore now investigate whether the two versions of neo-Austrian interest analysis can be interpreted as "components" of an integrated neo-Austrian view on interest. Pellengahr (1986) has written an interesting essay on this subject. In his opinion there are two different types of analysis perceived by the two sides. The Austro-Europeans are concerned with a kind of explanation directed at the sign (or the level) of interest rates. They start from a certain definition of time-preference (in relation to a specific situation) together with determinants of a more or less technical nature. For the Austro-Americans the crucial point is the essential meaning of the phenomenon of interest. They argue that the payment of interest (be it positive, negative or wholly absent) may always be understood as expressing the time-preference of economic subjects, under whatever circumstances. This general picture of interest should not be too hastily mixed up with rather casual observations concerning either the factual time-preference of economic subjects or the concrete technical conditions.

However, according to Pellengahr these two types of analysis are in a way complementary. Different questions are studied in each. When attention is focused on understanding what interest really is, no more is needed than a pure or general theory covering all possible cases - not excluding beforehand that the phenomenon of interest also can arise without any production taken place. But as soon as the occurrence of interest is considered in the concrete setting of a modern economy, the actual importance of production as a process in time can not be discarded easily, because its relevance for the precise magnitude of the rates of interest then is evident. Next to the essence of interest one could rightfully be searching for the determinants of either the sign or the level of interest rates. The clue for a further convergence, in the opinion of Pellengahr, would be that in the end time-preference and productivity are simply not independent phenomena.

Therefore some kind of synthesis between the two distinct Neo-Austrian analyses of interest seems possible after all. Such an integrated Neo-Austrian view on interest (and on capital) would be characterised by the following propositions :

- a interest is the outcome of a process of inter-temporal price formation;
- b a factor of production with a remuneration in the form of interest does not exist;

- c production involves a selection out of presently known techniques, each of which is characterised by a specific spread of inputs and outputs over different (current and later) periods of time;
- d next to primary inputs (labour services, certain permanently available factors of production) particular goods may also be at hand for a productive use;
- e as a capital good anything may be regarded which can be applied for some period as an instrument of production, but which is not freely at disposal (and therefore in due time needs investment should it be augmented or later on replaced in that capacity);
- f a "superior" but more "roundabout" way of production will not be realised if at given input and output prices the existing rates of interest are prohibitive;
- g prices of inputs may reflect the properly discounted prospective values of their contributions, i.e. in the production of consumption goods, such as will lead to a complete distribution of current output revenues;
- h under a competitive regime for the pricing of inputs and outputs, the rates of interest are equivalent to the rates of time-preference, the latter then also being in equilibrium with the intertemporal transformation rates.

These eight propositions present a coherent picture of a modern synthesized theory of interest in the Austrian tradition.

Some pitfalls must be mentioned as regards the proper interpretation of all the mentioned propositions. One must abstain from suggesting some sort of simple solution, of certain aspects, if there should still remain an ambiguity in (the implications of) a kind of synthesis as proposed here. The main pitfall could be that in this way two different methodologies are combined which give a different theoretical status to the various statements given. The "subjectivistic" version is particularly recognizable in some propositions; the "productivistic" version of Austrian interest analysis particularly in some others. The former version belongs to a methodology which primarily propagates an "exact" theory of universal validity. The latter version belongs to a methodology which considers certain empirical evidence not only relevant in an applied analysis, but already in the framework of a more abstract theoretical exposition. In the formulation of the eight propositions care has been given to circumvent this difficulty by not going beyond what would be endorsed by both sides.

Another pitfall (probably of minor importance) concerns the possible understanding of separate propositions in a wrong direction. E.g., in consequence of the statement given under (f), it should not be

inferred that time used in production is regarded to be productive. Waiting as such is in fact not supposed to be a particular factor of production. Boehm-Bawerk held the same view. Yet in his handling of a particular concept of the period of production, he gave rise to the impression that his analysis could be interpreted that way. Contrary to a historic or "backward" way of looking at production, a "forward" or prospective vision with regard to all economic activities should be taken. Such has been stated more explicitly in the wording of (c) and (g). Taken together, therefore, the propositions will not necessarily lead to a misunderstanding.

5. Clarification of capital controversies

Such an integrated Neo-Austrian view on interest seems to me important and of relevance for the further development of mainstream economics. The more so as it could lead to a clarification of various capital controversies that have risen in the past.

Already half a century ago Hayek (1941) stressed, that the Austrian approach was also anchored in classical economics, certainly no less than the 'neo-classical' theory of Anglo-American origin. In a comment on the recent controversy between Cambridge (UK) and Cambridge (USA), Hicks (1973) even stated that only the Austrians like Boehm and Hayek could claim to be standing in the classical tradition with regard to capital and interest; and that it was the "neoclassics" who in this respect were out-side the mainstream. Kirzner (1983) wondered why nowadays so little attention so far has been paid to for instance the PTPT, which he considers as a third possibility, beside the views of both sides in the "Grand Debate" mentioned. After the integration of this PTPT into a broader Neo-Austrian view on interest the correctness of an eventual claim of being in the centre of mainstream economics could be thoroughly investigated.

The following scheme might be useful to that end. It explicates the supposed driving forces in a market economy for the existence and determination of interest, according to the various kinds of interpretation.

EXPOSITION OF THE PRESUMED DETERMINANTS OF INTEREST

interpretation	context of explanation
NEO-CLASSICAL VIEW (Clark) Cambridge(USA)	demand and supply of capital conceived of as a "factor of production"
AUSTRIAN VIEW (Boehm, Menger) Neo-Austrians	time - preference also in relation to the time structure of production
NEORICARDIAN- RADICAL VIEW Cambridge(UK)	the (relative) economic power of "capitalists" as opposed to the workers

This is clearly no more than a summary of the three views on interest in terms of the "context of explanation". The middle position is in fact taken by the Neo-Austrian view, in so far as it shares with the Neo-Classical view the idea of interest as the outcome of a general price formation process; and with the Neo-Ricardian view the denial of some factor of production, called "capital", for which a remuneration in the form of interest on the basis of its productive contribution could be justified. But in this context something more should still be said concerning the interaction between time-preference as such and intertemporal technical conditions.

Let us explicate this point by considering a rather simple stationary economy with one technique of production in regard to a consumption good X and another for producing a consumption good Y. Both consumption goods are valued on a one to one basis for the same period. In technique A one unit of labour is needed together with three units of X to produce five units of X at the end of a certain period. In technique B two units of labour are needed in combination with two units of X to produce five units of Y at the end of the same period. There are 100 units of X and 25 units of Y produced in each and every period. The labour force of 30 units is paid in advance and gets a wage of 1 unit of either X or Y. Capitalists receive their interest at the end of a period and are paid 25% for loans.

Suppose that gradually the consumption of good X becomes preferred to that of good Y and that, ultimately, four units of X will be regarded of equal value as five units of Y. As a result capitalists will not be prepared to continue financing the production of good Y on the same basis as before. Let us assume that at first the rate of time-preference has not changed and thus remains equivalent to an interest rate of 25%. Then the implication is that, for the production of good X, some part of the labour force might still be hired for a wage of 1 unit of X. But for an employment of the total labour force in this way, i.e. in the production of good X against the mentioned wage, a higher level of investments in terms of X would be needed than before. Then it may be expected that the wage rate will decrease together with a rise in the rate of interest. This has a double effect: the barrier of time-preference could

be overcome, as a precondition for some increase in the availability of present goods for investment; and the needed amount of present goods to be invested (per labourer) will decrease. In the mean time net investment will be positive until eventually a new stationary equilibrium is reached. In case that the wage settles down on a level of no more than $1/3$, in terms of X, then it even becomes profitable to continue the production of good Y in some (smaller) quantity, with a corresponding rate of interest of 50% in both lines of production. Thus in the end, while the relative price for good Y has decreased (and, if any, less of it will be produced), the amount produced of good X will be larger, the wage rate (at least in terms of X) lower and the interest rate higher than before.

This simple case illustrates that *ceteris paribus* some change in consumer preferences may be accompanied by a change in the actual rate of time-preference, the magnitude of which will at least partly depend on intertemporal technical conditions. Furthermore, the example is instructive as there is no need whatever to mention a certain "capital intensity" of the two assumed techniques of production. Nevertheless it may be remarked that the average amount of capital goods in use per labourer, starting from $3 \frac{1}{3}$ in terms of X, in fact has increased here. Finally the illustration underlines that the Neo-Austrian view on interest centers on the problem of intertemporal economic valuations, regarded as just an element within the whole system of pricing of all kinds of economic goods, the latter then being of either a lower or a higher order - to use once more the peculiar terminology of Menger in the end.

~~~~~

## References :

---

- Bernholz, P., M. Faber & W. Reiss (1978), 'A Neo-Austrian Two-Period Multisector Model of Capital', *Journal of Economic Theory*, Vol. 17, pp. 38-50 (Repr. in M. Faber, ed., *Studies in Austrian Capital Theory, Investment and Time*, Berlin/New York, 1986, pp. 98-112)
  - Bohm-Bawerk, E. von (1921), *Kapital und Kapitalzins* :  
I. Geschichte und Kritik der Kapitalzinstheorien (1884),  
II-1. Positive Theorie des Kapitals (1889),  
II-2. Exkurse (1912); 4th Edition, Jena
  - Fetter, F.A. (1927), 'Interest Theory and Price Movements', *American Economic Review*, suppl. 17 (Reprinted in: F.A. Fetter, *Capital, Interest and Rent*, Kansas City, 1977, pp. 260-316).
  - Hayek, F.A. (1941), *The Pure Theory of Capital*, London
  - Hicks, J.R. (1973), *Capital and Time: A Neo-Austrian Theory*, London
  - Kirzner, I.M. (1976), 'Ludwig von Mises and the Theory of Capital and Interest', in: L.S. Moss (ed.), *The Economics of Ludwig von Mises*, Kansas City, pp. 51-65
  - Kirzner, I.M. (1983), *Pure Time-Preference Theory (A Post-Script to the 'Grand Debate')*, paper, New York University
  - Mises, L. von (1949), *Human Action, A Treatise on Economics*, London
  - Pellengahr, I. (1986), 'Austrians versus Austrians', in : M.Faber (ed.), *Studies in Austrian Capital Theory, Investment and Time*, Berlin/New York, pp. 60-95
  - Zuidema, R.P. (1988), 'On the Austrian Contribution to Capital Theory', *Journal of Economic Studies*, Vol. 15 (nr. 3/4), pp. 64-78
-