

# The Heinsohn-Steiger confusion on interest, money and property

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June 26, 1998

## Abstract

Heinsohn und Steiger formulated a "property premium" hypothesis. In their view interest is a premium that goes to property as a reward for its security services. We show that their position is nothing but a confusion and not a new insight. Rather than solving a "puzzle" of economics they have created one. All statements of Heinsohn and Steiger that are based on the property premium hypothesis are lacking foundation.

## 1 Introduction

Gunnar Heinsohn and Otto Steiger have come up with a new "paradigm" of property, interest and money. They apply their "paradigm" to current economic issues like mass unemployment, EMU and the transformation of former socialist economies and believe to offer new explanations and solutions. They believe that their "paradigm" stands in competition with the major schools of economic thought: (i) Classical Economics, (ii) Neoclassical Economics and (iii) Keynesian Economics. They maintain that the three schools of Economics fail to really comprehend the formative economic role of property. They attribute to property a unique capacity "to back by its encumbrance and to serve as collateral"<sup>1</sup> According to Heinsohn und Steiger it is this very capacity that alone creates interest and money.

The starting point of Heinsohn and Steiger is the well known distinction between possession and property. They use this distinction to structure the

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\*This note was written while visiting the Dipartimento di Scienze Economiche, Università Ca' Foscari di Venezia. I thank Alberto Giacomini for stimulating discussions.

<sup>1</sup>Heinsohn und Steiger (1997), p. 3.

history of human societies. They distinguish between custom or tribal societies, command or feudal societies and property-based societies. By definition of their terms, only property-based societies know of property in the sense of an absolute title which allows members of the society to dispose of material and immaterial things as they please. "Property" is their term for a legal title as an abstract thing. They avoid the term "ownership" which in their view does not separate between property and possession.

## 2 The basic elements of the Heinsohn-Steiger position

### *The property premium*

Their central notion is the "property premium". In property-based societies there are two types of returns: (i) the return of the physical use of the possessed goods and resources (material yield) and (ii) the return of the title to the property of the goods and resources which is an immaterial yield. This latter return they call *property premium*. That premium does not derive from the physical use of resources but derives from the creation of property which is a legal act that does not alter the initial possessional state of resources. Putting a fence around a field awards a premium to the field in addition to the fruits that grow on it.<sup>2</sup>

### *Property premium and money*

According to Heinsohn und Steiger the property premium is "a non-physical yield of security. It allows proprietors to enter credit contracts and is a measure for the potential of individuals to become a creditor and a debtor. It entails the capacity of a creditor to issue titles against his property which will be called *money*. By creating these titles the creditor encumbers his property, i.e, blocks his freedom over it for the time of the loan contract."<sup>3</sup>

### *Property premium and rate of interest*

"By encumbering and, therefore, blocking property in the contract, the creditor gives up immaterial property premium in exchange for a specified amount of the same type of titles promised by the debtor: the rate of interest. The debtor, in addition to this promise, has to secure the refunding of the loan through giving up property premium by encumbering his property: the pledging of collateral. Thereby, the property premium of the creditor materializes into interest, and the collateralized property premium of the debtor is turned into a premium attached to the titles he receives."<sup>4</sup>

### *Property premium and liquidity premium*

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<sup>2</sup>Heinsohn und Steiger (1997), p. 11.

<sup>3</sup>Heinsohn und Steiger (1997), p. 11/12.

<sup>4</sup>Heinsohn und Steiger (1997), p. 12.

"The collateralized property of the debtor must be equal in value to the titles loaned to him. It is only such titles - not some exogenously given money nor some money created endogenously in a loan contract without collateral - which provide the debtor with what Keynes has labeled "liquidity premium", and which he erroneously regarded as the cause of the rate of interest."<sup>5</sup>

### 3 Two functions of property and the rate of interest

#### 3.1 The orthodox view

The legal institution of property allows resources to serve in two functions: firstly, as factors of production for which possession of the resources is sufficient and, secondly, as collateral (security) for credit for which property of the resources is required (necessary). The "security" can only be given by the owner of the resources not by the possessor. Resources that perform the second function earn a premium which Heinsohn and Steiger call "property premium". The property premium should not be confused with the physical returns of the resources which results from the first function.

If the owner of an orange farm pledges his farm he provides a security service that is distinct from the fruits that grow on the orange trees. This security service is typically provided in a credit transaction where the creditor asks for security which is to say for a decrease in credit risk. We may usefully distinguish between two cases. In the first case, the farmer is looking for credit himself. In the second case, it is not the farmer himself but someone else who is looking for credit.

In the first case, as a result of pledging his farm the farmer may succeed to get a credit in the first place and, subsequently, at a lower rate of interest than otherwise. (If the farmer would not pledge his property, the creditor would ask for risk compensation by a risk premium which would drive up the interest rate of the credit contract. Depending on the size of the risk premium, the rate of interest demanded by the creditor may become larger than the expected rate of return of the project (as seen by the creditor) for which the farmer seeks credit and the farmer would not receive credit at all.)

In the second case, the farmer provides security in a credit transaction where someone else is seeking to become debtor. In such a case, the farmer may ask for compensation of the security service. There are well developed markets for such security or guaranty services. Typically, commercial banks are offering such security or guaranty services. The price for these security services is a premium for providing security (guaranty), it is not to be confused with the pure rate of interest.

In the orthodox view, the (pure) rate of interest is the price for the earlier availability of resources. A creditor provides money to the debtor such that

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<sup>5</sup>Heinsohn und Steiger (1997), p. 12.

the latter has resources available prior to the point in time at which he obtains funds otherwise that is to say without credit.<sup>6</sup> The actual rate of interest may contain, as additional components, a risk premium and, as component to subtract, a liquidity premium. The risk premium is zero for a secure debtor. If the credit title can be used as money the debtor pays the interest, partially or completely, by providing liquidity services. The value of the liquidity service of one money unit of a title is called liquidity premium. Therefore, the actual rate of interest charged to a credit will be the pure rate of interest plus a risk premium minus a liquidity premium:

$$r = i + rp - lp \tag{1}$$

- $r$  = credit rate of interest
- $i$  = pure rate of interest
- $rp$  = risk premium
- $lp$  = liquidity premium.

If the title is a secure title or is perfectly secured by collateral then the risk premium will be zero and the rate of interest reduces to the pure rate of interest minus a liquidity premium. If the credit title is completely illiquid then the liquidity premium is zero. Thus, the credit interest rate for a secure but completely illiquid title will be (equal to) the pure rate of interest. For liquid titles (e.g. time deposits of commercial banks) the liquidity premium is positive. For liquid secure titles the rate of interest is lower than the pure rate of interest.

Money is a title with the highest possible liquidity. Its credit risk is normally assumed zero. Normally, it is also a title that does not pay nominal interest. A holder of money will balance the value of the liquidity service of one marginal unit of money, the marginal liquidity premium, with its opportunity cost, the pure rate of interest. Therefore, in equilibrium, the rate of interest is equal to the (marginal) liquidity premium. The pure rate of interest and the liquidity premium are conceptually distinct, though, in equilibrium, algebraically the same.

Clearly, a secure credit title that is also a perfect substitute for money does not carry interest in equilibrium. The security of this title reduces the risk premium to zero. Being a perfect substitute for money, the value of its liquidity service is equal to the value of the liquidity service of money which in equilibrium is equal to the pure rate of interest.

### 3.2 Relating Heinsohn-Steiger to the established view

Property in its security function reduces the risk the creditor of a property holder has to bear. For the creditor, the reduction of risk by property being

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<sup>6</sup>Our critic of Heinsohn and Steiger depends on the idea of decomposing the general rate of interest into three components. It does not depend on a particular interpretation (e.g. neoclassical interpretation) of the pure rate of interest, but depends on the meaning of the other two components, a risk premium and a liquidity premium.

pledged is a valuable benefit. The creditor remunerates the risk reduction by reducing the compensation required for risk bearing.<sup>7</sup> If the pledging of property eliminates credit risk completely the compensation demanded by the creditor for risk bearing is reduced to zero.

It should be obvious by now, that the property premium of Heinsohn and Steiger is nothing else than the price of the risk reduction function of property. In equilibrium, this price is equal to the conventional risk premium. Since the risk premium is different from the pure rate of interest, the property premium cannot be identical to the pure rate of interest. The latter identity is the central tenet of Heinsohn-Steiger with respect to the rate of interest. However, and as a matter of fact, the pure rate of interest and the property premium have nothing in common. By pure chance, the two can have the same numerical value. But, conceptionally, the two are completely distinct.

By now, it should also be clear that a liquidity premium will neither be the cause nor the effect of the pure rate of interest. If the two are equal in an equilibrium this is not a sufficient reason for a causal interpretation of the equilibrium relation between the two.<sup>8</sup>

The liquidity premium of a particular asset is the price for the degree of liquidity of the asset, it is the price for the asset's nearness to money. The liquidity premium of money, sometimes called "the" liquidity premium, is the price for the perfect liquidity of money. One might also say that "the" liquidity premium is the price for the moneyness of money. In equilibrium, "the" liquidity premium of (riskless) money is equal to the pure rate of interest.<sup>9</sup>

## 4 Bank credit, money creation, and the rate of interest

### 4.1 The traditional view

A credit is a contract in which the debtor promises to pay a determined sum at a future date in exchange for spot delivery of cash (money). The money comes

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<sup>7</sup>This holds true for pledging the property in a credit transaction of the property holder. If property is pledged in a credit transaction of an individual other than the property holder then this service is remunerated by a fee rewarding the underlying guaranty service. In equilibrium, the fee for the service is equal to the risk premium saved (avoided) by the debtor.

<sup>8</sup>This is so independently of what anyone supposedly or really has said about "the liquidity premium causing the rate of interest", be he called Keynes or otherwise. By the way, it should not come as a surprise that the common habit of economists of unduely interpreting equilibrium relations in a causal fashion may also be observed in the realm of money and interest in general and in the work of Heinsohn-Steiger in particular (see below).

<sup>9</sup>In order to check this statement, consider the case where money may cause a credit risk to its holder. Think of deposits of commercial banks whose credit standing is not perfect. In order for their deposits to be held in equilibrium they will have to offer interest to the holders of the deposits. In that case where, apart from the credit risk, we treat deposits of these unsecure banks as a perfect substitute for money (currency), the holder of the deposits is a creditor to the bank and the appropriate deposit rate of interest is equal to the premium for the credit risk involved.

from the creditor. In this definition it is not stated whether the money is already existing or is created at the moment when the contract is made.

For the discussion of the issues raised by Heinsohn-Steiger we follow the authors and consider the particular credit contract situation where the money supplied by the creditor is created ad hoc. This is the normal case when commercial banks provide credit. Commercial banks purchase the title of a debtor and pay by means of an entry into their accounts, in this case, an account of demand deposits in favor of the debtor. This entry "creates" the money that the bank supplies in the credit transaction. Here, money creation is linked to a credit transaction.

Normally, the credit of the commercial bank to its customer will be secured by the pledging of property of the bank customer. If the credit risk is completely eliminated by the property of the bank debtor/customer then in competitive equilibrium the interest rate of the credit transaction is reduced to the level of the pure rate of interest.<sup>10</sup>

The demand deposits credited to the bank debtor are titles created by the bank. In the view of Heinsohn und Steiger these titles are "secured" not by the debt title of the creditor but by the property of the bank. They see the property of the bank being "blocked" by an amount equivalent to the value of the additional demand deposits credited to the debtor. "Blocked" meaning pledged to eliminate the credit risk that the deposits carry for the commercial bank customer as a creditor of the bank. If the deposits are covered by pledged property of the commercial bank the credit risk of the demand deposits seen as a title is reduced to zero (therefore  $rp_d = 0$ ) and if the demand deposits are perfect substitutes for money (currency) then the liquidity premium in equilibrium is equal to the pure rate of interest ( $i_d = lp_d$ ). Consequently, the equilibrium rate of interest for the bank title called demand deposits in this case is equal to zero.<sup>11</sup>

Heinsohn and Steiger emphasize that mutual pledging is involved in such a bank credit transaction. The debtor of the commercial bank is pledging his property as collateral to eliminate the risk of his indebtedness to the bank. If all credit risk is eliminated by property pledging (collateral) the risk premium component of the interest rate for the bank debtor is equal to zero ( $rp_c = 0$ ). By assumption, the debt of the bank customer carries no liquidity and the liquidity premium involved is zero as well ( $lp_c = 0$ ).<sup>12</sup> Therefore, the rate of interest of this completely secured loan to a bank customer pays the pure rate of interest to the crediting bank.

## 4.2 The Heinsohn-Steiger view

According to the authors, property has two characteristics (properties) corresponding to the two functions listed above. Property as a resource for produc-

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<sup>10</sup>A similar account may be given for the credit of a central bank to a customer commercial bank whereby central bank money (deposits with the central bank) is created ad hoc.

<sup>11</sup>The subindex  $d$  stands for deposits.

<sup>12</sup>The subindex  $c$  stands for bank credit to bank customers.

tion is material property, as security for credit it is immaterial property. Now, according to Heinsohn-Steiger, "the creditor gives up immaterial property in exchange for a specified amount of the same type of titles promised by the debtor: the rate of interest."<sup>13</sup> The immaterial function/property is the pledging of property. According to Heinsohn-Steiger this blocking is a service of the bank that requires a premium. In their view the remuneration for this service comes in the form of interest on the credit contract. In equilibrium the two are supposed to be equal. Committing the error of causal interpretation of an equilibrium relationship, the authors arrive at the statement that the immaterial property premium is the cause of the rate of interest. In a language that reminds us of the darker ages of German philosophy this is expressed by Heinsohn-Steiger as follows: "...the property premium of the creditor materializes into interest".

### 4.3 A critique of the Heinsohn-Steiger view

In spite of the deep-sounding wording, this is a rather superficial view. The blocking of property by the bank is nothing else than a reduction of risk for which the bank would have to compensate the holder of its deposits otherwise. Asking for interest to compensate the elimination of risk (by the blocking of property) would amount to ask for being compensated twice for one and the same service (double compensation). The first compensation would come from not paying (not having to pay) the risk premium to the holder of demand deposits. The second compensation would come from the payment of interest. Double payments not being viable in a competitive environment and given that no risk premium is being paid to a creditor of a bank on the holding of deposits in case of perfect security of those deposits, the actual rate of interest cannot be a compensation for the risk of bank deposits but has to be explained otherwise.

Furthermore, imagine that the holder of commercial bank deposits withdraws them and asks for central bank money. In addition, assume that the commercial bank is in a position, e.g. out of its cash holdings, to supply the central bank money required by the withdrawal of its deposits. Upon withdrawals, the deposits of the bank customer disappear from the bank's accounts. With the disappearance of the deposits, the blocking of the property would be stopped (end) but the bank customer would continue to pay interest on his bank credit (his debts to the bank). If the customer would have paid interest for the initial blocking of property then the bank would, by the withdrawal, have lost the economic reason for asking such interest payments from its debtor.

This result clearly implies that the pledging of property, the property premium is not necessary for the payment of a positive rate of interest. This follows from the observation that interest payments may occur without the pledging of property. As the case of demand deposits with zero interest shows property blocking is also not sufficient for the payment of interest.

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<sup>13</sup>Heinsohn und Steiger (1997), p. 12.

## 4.4 Result

The pledging of property and the associated property premium is neither necessary nor sufficient for a positive (pure) rate of interest. The pledging of property is a substitute for the payment of risk premium. (The pledging of property reduces the risk premium demanded by a creditor.) The conventional "risk premium" therefore is a measure for the "property premium" of the authors. However, the conventional risk premium is but a component of the interest rate and is different from (i.e. not identical to) the pure rate of interest. An identity of risk premium or property premium and pure rate of interest is falsely postulated by Heinsohn-Steiger.

# 5 The construction of a property based monetary order

## 5.1 The problem of identifying "money"

According to Heinsohn-Steiger, property in the second function allows proprietors to enter credit contracts. "It entails the capacity of a creditor to issue titles against his property which will be called *money*". The second phrase is a rather puzzling statement. Its meaning is not at all clear. There are at least three interpretations I can attach to this phrase:

1. There is no money without property pledging. Equivalently: Money by necessity is a title issued against property.
2. Any title issued against property is money (property pledging for a debt turns debt into money). Equivalently: Property pledging is a sufficient condition for debt being money.
3. Some titles created against property are money and some are not.

The first interpretation is clearly false as we know from the idea of helicopter money.

The second interpretation is also false. This can be demonstrated as follows. The description of the creation of money given by Heinsohn-Steiger may be represented by the following balance sheets referring to a commercial bank and to an industrial firm/household, respectively. When the bank advances a loan to the firm/household it generates both the credit entry on the asset side of its balance sheet and the money entry on the liability side. When the firm/household accepts a credit from the commercial bank it generates both the debit and the credit entry of its balance sheet. In the process of a credit contract in which money (demand deposits) is created, both the bank and the firm/household pledge property. The bank pledges its tangible property for its debt (= money). And the firm/household pledges its tangible property (as collateral) for its debt which by assumption of Heinsohn-Steiger is not money. Property pledging occurs symmetrically. The difference between money and nonmoney titles cannot be explained by the presence or absence of property being pledged. If property

### Bank balance sheet

tangible assets (property)	capital
credit to firm/household	debit = deposit money

### Balance sheet of industrial firm/household

tangible assets (property)	capital
credit = deposit money	debit to bank

pledging is constitutive for money creation then the debits of the firm/household should be money as well. (Or is there a difference between property pledging of a bank and the pledging of property by a firm/household? If yes, what is the difference, what causes it and what are the effects of this difference?)

The scheme of an act of money creation as described by the tables is consistent with the third interpretation.

If Heinsohn-Steiger are to be consistent then interpretations one and two have to be eliminated. If the first two interpretations are eliminated then we have lost property pledging as a reason for debts being money and we have to find another one. Consider the following: Debts of the bank are considered money while debts of the firm/household are not. However, it remains unclear why the bank is considered a bank and why the firm/household is considered a nonbank. Thus, Heinsohn-Steiger do not give a reason for some debt being money. They just assume that some debts are money while others are not.

## 5.2 Money proper and the money of account

Heinsohn-Steiger assume two kinds of money. The money created by credit and money proper. The two are not independent. In fact, when they want to express the value of property, a thing which they call "reckoning property"<sup>14</sup>, they invoke the existence of a money of account which serves as a unit of account for expressing the value of property. They do not explain where this money of account comes from and how it is related to their property based creation of money.

One way out is to interpret money proper as central bank money. However, in general, as we shall see in the next section, the creation of central bank money cannot be based on property pledging.

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<sup>14</sup>Heidsohn- Steiger (1997), p. 13.

### 5.3 Can money proper be property based?

The quantity of circulating central bank money (money proper) must already be determined before the value of (other) property can be determined. If that quantity were undetermined then the money prices of goods and therefore the value of property would be undetermined. The amount of credit that could be secured by property would be undetermined and therefore the quantity of money that could be created by pledging a piece of property would be undetermined.

Here, Heinsohn-Steiger run into a well known problem of monetary theory. It is known as the "need of a nominal anchor". The nominal anchor cannot be based on property since the value of property cannot be determined before its price in terms of the nominal anchor is known. The nominal anchor problem can only be solved in a property based way if a commodity is selected as the nominal anchor. In that case the relative prices can be used to determine the value of property in terms of the commodity that serves as money.

### 5.4 Implications for the establishment of a stable monetary order

The upshot of this finding is that when Heinsohn-Steiger are demanding or suggesting a property based money they really are either arguing "nonsense" or are arguing in favor of a commodity money (e.g. a gold standard). Outside of a commodity standard, the demand of Heinsohn-Steiger to base money creation on property exclusively is not a feasible guideline for the creation of a stable money order.

In a commodity standard where a property based money logically seems possible/feasible, the stability of the price level is in the hands of the unpredictable forces that determine the availability of the commodity on which the money standard is based. (Think of gold discoveries in a gold standard.)

Basing money on property, i.e. a commodity standard is neither necessary nor sufficient for securing price stability. Necessity: As the fiat money system of the FRG shows you can have price stability without a property base (commodity standard) of your money. Sufficiency: As historical experiences show, price levels have not been stable even under a gold or silver standard. Consequently, both on theoretical and empirical grounds, the idea of securing price stability by basing money on property appears to be illusionary.

## 6 Conclusion

We have shown that Heinsohn-Steiger's hypothesis that property premium is the substrate of interest cannot be maintained. Instead, we have demonstrated that the property premium is a risk premium which is just a component of the general rate of interest. Other components are the pure rate of interest and, as a subtraction, a liquidity premium. The position of Heinsohn-Steiger is due to a simple confusion and not to deeper insights that would contradict and/or

outdate the orthodox position. Consequently, all statements and conclusions of Heinsohn-Steiger that are based on their property premium hypothesis (the equality of property premium and the pure rate of interest) are lacking foundation.

In addition, we have found that a property based monetary system can only be constructed if the nominal anchor is commodity money (as for example in a gold- or silver standard). As historical experiences show, price levels have not been stable even under a gold or silver standard. The idea of securing price stability by basing money on property is illusionary.

## References

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