

Lecture 8:

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GOLD STANDARD UNIVERSITY

Summer Semester, 2002

Monetary Economics 101: The Real Bills Doctrine of Adam Smith

Lecture 8

THE BILLS OF THE GOLDSMITH

- The Second Greatest Story Ever Told, Chapter 9 -

- Marketability of Goods M The Marketability of Paper -

- The Goldsmith as Banker -

Evolution of Marketability

I dedicate this Lecture to the memory of Carl Menger (1840-1921), monetary scientist; the founder of the Austrian School of Economics; author of the greatest book ever on economics (*Gundsätze der Volkswirtschaftlehre*, 1871, translated into English under the title *Principles of Economics*); one of the discoverers of the concept of marginal utility. He also introduced the concept of marketability upon which the theory of money and credit rests.

"The differences in the degree of marketability is of the highest significance for the theory of money. The failure to recognize this is one of the essential causes of the backward state of monetary theory. The theory of money necessarily presupposes a theory of marketability of goods."

(Carl Menger *On the Origin of Money*, 1892)

In the next Chapter of *The Second Greatest Story Ever Told* we shall see that the bank note originated, not as a fraudulent warehouse receipt issued by the goldsmith against non-existent gold, but, quite legitimately, as a bill of exchange drawn on and accepted by the goldsmith. Just as the market promoted gold to the station of money through the evolution in its marketability, so the goldsmith's bill was promoted and became the bank note, through a similar evolution in its marketability among bills of exchange.

Chapter Nine

in which the gentle reader learns why the traders picked the bills of the goldsmith

Traders at the Discount House noticed that the bills drawn on and accepted by the goldsmith behaved quite differently from other bills. Although they were, just as any other bill, maturing within 91 days, they were coming back to the goldsmith after a few weeks or even a few days of circulation. Not as if anything about them was suspect. On the contrary: the bills were 'too good'. They circulated too fast. Further circulation was hampered by the limitation of space on the back used for endorsements. When the bill's back was filled up with signatures, it had to be returned to the goldsmith who substituted another one with a 'clean back'. As this was a nuisance, soon the goldsmith solved the problem with a clever innovation. He instructed his suppliers that they bill him with the legend "payable to bearer" on the face of the bill. This innovation eliminated the necessity of endorsing, and the goldsmith's bearer bills were taken in and paid out almost with the same ease as were gold coins.

Then the goldsmith made a second interesting discovery. Now his bearer bills kept coming home 'late', sometimes weeks or even months after maturity. This was completely unknown in the experience of other merchants some of whom tried, unsuccessfully, to imitate the goldsmith in issuing bearer bills. Traders at the Discount House explained the mystery. As most people were holding the goldsmith's paper only for a fraction of a day, they did not bother calculating and charging the negligible discount due to them. The goldsmith's paper mostly changed hands at face value. In effect, the market segregated the bills according as the acceptor was the goldsmith or someone else. The goldsmith's bearer bills were no longer treated as an earning asset but, rather, as a surrogate of the gold coin, which was easier and safer to carry and to transfer. These bills circulated very fast indeed, even faster

than the gold coin itself. Other bills were circulating much more slowly, as they were sought after mainly as an earning asset by merchants in their slow season who wanted to participate in the earnings of their colleagues in their high season.

The promotion of the goldsmith's paper was a spontaneous development. It had no roots in legislation, government patent or monopoly (nor in the lobbying activity of the Goldsmiths' Guild). The reason was also clear. A bill is considered more marketable if the drawer stands closer to the head of the line waiting for the consumer's gold coin. Thus the bill drawn on the clothier was more marketable than the one drawn on the weaver, which in turn was more marketable than the bill drawn on the spinner. Now the bill drawn on the goldsmith was more marketable than any one of those for the simple reason that the goldsmith was working with the very material of which the standard of value was made.

Soon enough people were making new demands on the goldsmith that were quite unrelated to his trade. Those who had to make several smaller payments but had only one large bill in their possession came to the goldsmith asking him to 'break' their large bill. Thereafter the goldsmith issued his bearer bills in standard denominations of \$100, \$500, \$1,000. He then balanced the liability arising out of this issue not by gold coins but, at least in part, by large bills drawn on other merchants that have been presented to him for 'breaking'.

In an unrelated development, the goldsmith dropped the maturity date on his standard-denomination bills, as it served no useful purpose any more. The maturity date was replaced by the legend "payable to bearer on demand". These were called the goldsmith's "bearer sight bills", the precursors of the bank note.

The market process promoting the bill of the goldsmith to become the most marketable paper in the bill market was analogous to the market process that had earlier promoted gold to become the most marketable good in the commodity market. The latter was studied by Carl Menger in his seminal paper *On the Origin of Money* in *The Economic Journal*, in describing the concept of marketability.

There is a phenomenon which has from old and in a peculiar degree attracted the attention of social philosophers and practical economists, namely, the fact that certain commodities became universally acceptable as media of exchange. It is obvious even to the most ordinary intelligence that a commodity should be given up by its owner in exchange for another more useful to him. But that every economizing individual should be ready to accept a certain commodity . . . *even if he does not need it, or if his need for it is already satisfied*, in exchange for all the goods he has brought to the market, while it is none the less what he needs that he first consults when acquiring goods . . . has been considered >outright mysterious - even by such a distinguished thinker as Savigny . . .

The difficulties of barter would have proved insurmountable obstacles to the progress of trade, had there not lain a remedy in the very nature of things, to wit, *the various degrees of marketability (Absatzfähigkeit) of commodities*. The differences in this degree are of

the highest significance for the theory of money. The failure to recognize this is one of the essential causes of the backward state of monetary theory. *The theory of money necessarily presupposes a theory of marketability of goods.*

The person who wishes to acquire certain definite goods in exchange for his own is in a more favorable position if he first exchanges his own wares for highly marketable goods. Then, through a second exchange, he can more easily acquire the goods he wants . . . Men have been led, with increasing knowledge of their own individual interest, without convention, without legal compulsion, nay, even without any regard to the common interest, to accept highly marketable goods in exchange for their wares . . . The most highly marketable goods have thus become, over a considerable period of time, the generally acceptable media of exchange . . . (*Op.cit.*, p 239-255.)

The most marketable good that, through the evolution described by Menger, has ultimately become the generally acceptable medium of exchange, is gold. In the bill market an analogous evolution has promoted the goldsmith's paper to become the bank note, the most widely acceptable form of a bill of exchange. Even though all properly constructed bills showed a high degree of marketability, there was a difference. Some bills lacking a high recognition value might be less negotiable, their discounting might run into problems, and they might have difficulty in circulating.

What Is Involved in Selling a House?

Take the case of selling a house. As we shall see, the exchange involved in this sale is quite a bit more complicated than it may appear at first sight. It involves no fewer than five different exchanges, until the deal is complete. I wonder how the finer details in such a common deal as the sale of a house could have escaped the scrutiny of economic theoreticians.

The buyer and the seller of the house agree on a closing date by which the seller can vacate it and the buyer can come up with the full purchase price. Suppose the closing date is two months away. The buyer expects that in two months he can liquidate some of his investments, say stocks, which will enable him to cover the price of the house. He knows that a nearby closing date may not let him get the best price for his investment, due to the limited marketability of stocks. On his broker's advice he needs about one month to get the best price. After one month the buyer of the house sold the stocks and received bank notes in exchange. As he realized that holding such a large amount in the form of bank notes for one month would involve him with a loss of income, he decided to get a bill to mature in a month or more to derive an income on his funds for the interim period. On the day of closing the deal, the buyer of the house discounted his bill. Since this was a highly marketable paper, he knew he would be able to do it on any day of his choosing. He discounted his bill against payment in the form of bank notes. There was no question

about the acceptability of this instrument by the seller of the house, since the bank note was the most marketable paper there was. Later in the day the buyer of the house, in his turn, exchanged the bank note for another bill of exchange maturing in three months. He wanted to earn an income while he was finding a suitable investment for his funds. Ultimately, he wanted to invest the proceeds from the sale of the house in bonds. They earned a higher income than bills, but they were not as marketable. It would take time get them at the best price. The bond dealer suggested to him that a new issue would be floated in three months. After three months he used the proceeds of the 3-month bill to pay for the bond.

We can see that the sale of the house took six months and five exchanges to complete. All five exchanges involved the bank note, the common purchasing medium. The five exchanges were: (1) selling the stocks, (2) buying the 1-month bill with the proceeds from the sale of the stocks, (3) paying for the house with the proceeds from the sale of the 1-month bill, (4) buying the 3-month bill with the proceeds from the sale of the house, (5) paying for the bond with the proceeds from the sale of the 3-month bill. At that point the market agitation caused by the sale of the house came to rest.

We can see that the goldsmith's bearer sight bill, *alias* bank note, plays an important role in facilitating the purchase or sale of real estate, stocks, bonds, bills, etc. The goldsmith through his money-changing business has become a banker. His bank notes were considered mature bills (sight bills) which could be exchanged for gold coins on demand at any time. There is no fraud involved. The bank note is *not* a warehouse receipt for gold on deposit. It is a bill of exchange that the market has promoted to the station of medium of exchange, for being more marketable than any other. People were happy to hold it, especially if they needed ready cash on hand for unexpected purchases, and they willingly paid for its use in the form of foregone discount. They were paying for the convenience to use a paper surrogate of the gold coin, in applications where the direct use of the gold coin would be less convenient.

Where Paper Cannot Deputize for Gold

The bank note could be used as cash universally. The question arises whether it could serve as a surrogate of the gold coin in *every* application. Mises gives an unconditional "yes" as the answer. My answer is that there are several applications where it could not, two of which I have already mentioned earlier. The consumer must have gold coins, rather than bank notes, to pay for consumer goods the production and distribution of which has been financed with bills of exchange (or, what is the same to say, to buy goods belonging to the Social Circulating Capital). The gold coin is the consumer's 'ballot paper' with which he casts his vote on a daily basis, conveying a message of his satisfaction or dissatisfaction with their services to the producers and distributors of consumer goods.

(See Lecture 2.) He must have the gold coin, otherwise he would be deprived of his right to vote.

Another example where paper cannot deputize for gold is the payment of a bill of exchange at maturity (see Lecture 6, Chapter Five), for the same reason that a bill cannot be settled at maturity by redrawing it, and 91 days is the absolute limit for its maturity. In order to safeguard the integrity and solvency of the clearing system, gold coins must be used for this purpose. The gold coin in the possession of its ultimate guardian, the sovereign consumer, will retire the real bill at maturity.

A third and most important exception will be discussed in my next course in this series entitled *Gold and Interest*, to start in the Fall Semester. In it I shall introduce a character called the "marginal bondholder". He is the first to sell his bond when the rate of interest drops. He finds the low rate unrealistic and unacceptable. He is willing to take profits on his holdings of bonds, keep the proceeds in gold, and buy his bonds back at a lower price when interest rates rise again to a reasonable level.

If he were to accept the bank note instead of the gold coin in exchange for his bond, then he would be jumping from the frying pan into the fire. He must insist on payment in gold if he wants to assert his time preference, in protest against unreasonably low interest rates. Incidentally, as we shall see, this is a point that escaped David Ricardo as well as Ludwig von Mises. Mises specifically says that "claims [to gold coin] are *complete* substitute [for the gold coin] and, as such, are able to fulfill *all* the functions of [gold coins] in those markets where their essential characteristics of maturity and security are recognized" (*op.cit.*, p. 300, emphasis added).

Circulation of Bank Notes

The bank note, as I have mentioned already, is the most marketable among the bills of exchange. It is assumed that the banker (originally the goldsmith) holds a blend of gold and maturing real bills against this liability. As a bill matures in his portfolio, he has to follow one of three possible courses of action. Either he replaces it with its face value in gold coins; or he can discount an equivalent amount of fresh bills. As a third possibility, he may also retire an equivalent amount of bank notes from circulation. If he fails to do one of these things, then the bank note becomes a phony bill, and the banker a counterfeiter, just as the goldsmith in the fable who would issue fraudulent warehouse receipts against non-existent gold.

There is no mystery about the circulation of the bank note which, unlike a bill of exchange, is not an earning asset. It circulates because it satisfies a need very different from that of the bill of exchange. Unlike bills that cannot circulate after reaching maturity, that is, after they cease to be an earning asset, bank notes circulates indefinitely.

I have expressed this by saying that the bank note is a sight bill. It is more versatile and convenient than other bills. It relieves the holder of the chore of keeping track of the various maturity dates. It is accepted as hand-to-hand money without the need to check the credit standing of the drawer and acceptor at every time a payment is received. (It goes without saying that the banker must have an impeccable name.)

Combining the business of the goldsmith with that of the money-changer was no fraud. As long as the bank note in circulation is properly backed by gold or by maturing real bills, there is no counterfeiting involved. The superficial similarity between the goldsmith's bearer sight bill (the bank note) and the warehouse receipt representing gold deposited for safe keeping (the gold certificate) is misleading. Both instruments are promises to pay bearer so much gold on demand. But the difference, although less apparent, is far more significant. The bank note is not specific about the asset held against its issue, that could be gold, or real bills, or a blend of the two. The gold certificate, on the other hand, explicitly states that a specified number of gold coins are held on deposit to balance the liability. The legal and economic differences between these two instruments were well-understood by the goldsmith's creditors. They trusted the goldsmith that he would balance his liability represented by the bank note with a blend of gold coins and maturing real bills drawn against consumer goods in urgent demand. On the average, one-ninetieth of the real bills in his portfolio would mature every single day, bringing in more than enough gold coins to satisfy normal demand for converting bank notes. Holders of the goldsmith's paper also knew that the marketability of the assets in the goldsmith's portfolio guaranteed that even abnormal demand for gold coins could be met. The goldsmith could discount his bills with people in need of earning assets, or at the Discount House. Thus real bills could be liquidated at any time, virtually without loss. Bank notes were safe, and their issue did not give rise to credit expansion, as charged by Mises. For each bank note of face value \$1,000 issued, the goldsmith had to withdraw \$1,000 worth of real bills from circulation. For each \$1,000 loan issued to a merchant in the form of a bank note, the banker would put the bill of exchange drawn on the merchant into his portfolio C a bill which, with a little more trouble, the merchant himself could put into circulation.

Run on the Bank - Wages of Dishonesty

There are those critics who assert that the removal of the maturity date from the goldsmith's bearer bill was a high-handed act. In any case, these critics say, it is impossible to make good on the goldsmith's promise if all the bearers of bank note show up at the cashier's window at the same time demanding gold. Critics conclude that the goldsmith's promise to pay bearer gold on demand is dishonest. It cannot be made good. As a proof, they cite the periodic runs on banks, the suspensions of convertibility, and the 'bank holidays'. They assert that the so-called '>fractional reserve banking' is unworkable and dishonest.

This is not a frivolous criticism, and it deserves a careful answer. The problem is in the double standard the government has in contract law. It gives special protection to banks, but not to other firms involved in bankruptcy. The government does this in return for the banks' cooperation in sheltering illiquid government paper in their portfolio. Unlike the bill of exchange, the government's treasury bill would not circulate. As part of a sweetheart deal, the banks would discount them along with the commercial bills of exchange. Incidentally, the real cause of bank runs is: illiquid assets such as treasury bills in the bank portfolio.

In the sequel we assume that the banks decline the government's request to discount treasury bills. In that case the phrase "fractional reserve" is a misnomer. The issue of bank notes is fully backed by reserves consisting of gold coins and bills of exchange maturing into gold coins. Nevertheless, it is true that if all holders of bank notes wanted gold from the bank simultaneously, there would not be enough to satisfy demand simultaneously. But what is the probability of this happening? In order to find the answer to this question we have to make certain assumptions about the intention of customers withdrawing gold. It is reasonable to assume that the majority wants gold because they would like to purchase earning assets. This part of the demand for gold presents no problem, as in retiring the bank notes the bank can sell an equivalent amount of earning assets. Other holders of bank notes may need the gold to make remittances abroad. This part of the demand presents no problem either. As the bank liquidates an equivalent amount of real bills from its portfolio, it is pushing up the discount rate at home relative to those prevailing abroad. Foreigners will find this country an attractive place where to buy real bills and, as a result, the gold will stay in domestic circulation. This leaves us to deal with the third and last group of holders of bank notes: those who are withdrawing the gold coin in protest against low interest rates. As long as this third group is a small minority, the bank can survive the run. It will sell a sufficient amount of assets in order to pay the holders of its bank notes in gold coins. Losses, if any, can be covered by canceling the shareholders' dividend for the quarter.

Thus the problem boils down to the case where a majority of people holding bank notes want to register a protest against low interest rates by demanding gold. If this protest is in response to the bank's hiding illiquid assets in the balance sheet, then, indeed, dishonesty is involved, and the run on the bank is just the wages of dishonesty. The protest is legitimate, and the resulting 'shortage' of gold is just a reminder who the boss is and what he thinks of the credit policy of the bank. The run is not an instance of a malfunction of the gold standard, nor is it a proof that commercial banks cannot operate on the basis of real bills as liquid earning assets backing the note issue. Quite to the contrary: it shows that the gold standard is functioning exactly as it is supposed to. The public has the gold stick, and is using it to force the bank to play by the rules. We are justified in suggesting that virtually all the runs in the history of commercial banking have been of this type.

Stocks or Flows?

We shall now assume that the bank plays by the rules and it is not under pressure to monetize government debt, and that bank notes and deposits are balanced exclusively by gold and self-liquidating real bills. Can a run on the bank develop under those circumstances? History provides no guide in this regard: commercial banks have always been under pressure to monetize government debt. All we can say is that the possibility of a run on the bank is extremely remote. While remote, it cannot be ruled out. In order to put the problem in the right perspective we must look at analogous situations wherein the potential demand to use a facility, should it present itself simultaneously, cannot be met. There are many such cases. It is true that the George Washington bridge joining New York City to New Jersey could not meet the potential demand if all the people living in the vicinity wanted to cross it simultaneously. Was it therefore a mistake to build the bridge in the first place? Of course not! Is the Port Authority acting dishonestly when it posts toll charges and promises the right to pass on demand, 24 hours a day and 365 days a year, against the payment of the toll? Of course not! All bridges, roads, railways, ferries, elevators, etc., are designed and constructed with the understanding that not all potential users will want to use it simultaneously.

Murray Rothbard advocates 100 percent gold reserves banking 'to eliminate dishonesty' in the promise to pay gold to the bearer of bank note on demand. Apart from the fact that there is no dishonesty in the promise as long as the bank is run properly, as explained above, even the 100 percent gold reserve would not remove the contingency that requests for redemption cannot be honored. There is always a remote possibility that an act of God, or human error, might temporarily prevent the bank from making good on its promise. In the realm of human existence no promise is ever free from such contingencies even if it is not explicitly stated nor does honesty have anything to do with it.

The notion that the bank's promise, if it is to be honest, forces it to have a store of gold on hand equal to the sum total of its note and deposit liabilities stems from a fundamental confusion between *stocks* and *flows*. The promise of a bank, as that of every other business, refers to flows, not stocks. The promise is honest as long as they see to it that everything will be done to keep the flows moving. In the case of the bank, the promise is honest as long as the bank carries only self-liquidating bills, other than gold, in the asset portfolio backing its note and deposit liabilities.

"You Can't Imagine How It Pleased the People!"

If the goldsmith's creditors had ever had any doubts about the security and integrity of his money-changing business, then they would have accepted his bills only at a discount, or not at all. The financial annals fail to reveal an instance of a lawsuit filed against the

goldsmith for fraud in misrepresenting sight bills as gold certificates or warehouse receipts. Such a charge, if one had been made, would have been thrown out of court with a remark from the judge to the effect that "plaintiff ought to familiarize himself with the difference between a promise and a certificate".

So did the Commercial Bank grow out of the goldsmith's money-changing business, and such was the evolution of the bank note from the bill of exchange. It is not possible to understand the circulation of the bank note without understanding that of the bill, and the evolution in the marketability of the bill of the goldsmith. The special status granted to the goldsmith's bill was free from government intervention and coercion (at least before the advent of central banking).

The goldsmith's money changing business was legitimate and honest. He offered his own bills, which were more convenient, more marketable, and more negotiable, in exchange for bills drawn on other merchants "which were less convenient, less marketable, and less negotiable." This was a genuine service for which people were willing to pay a fee in the form of foregone discount.

The truth is that the goldsmith's money changing business was the great success story of the Renaissance. It was not the beginning of the Great Fraud perpetrated on the people, aptly described in the famous paper-money scene:

Damit die Wohltat allen gleich gedeihe,
So stempelten wir gleich die ganze Reihe:
Zehn, Dreissig, Funfzig, Hundert sind parar.
Ihr denkt euch nicht, wie wohls dem Volke tat.

(Goethe's *Faust*, Part two, Act one)

(For an English translation, see Lecture 4). The Great Fraud, the disenfranchisement of the laboring classes, and the commissioning of the Invisible Vacuum Cleaner, was to come later. It was done in three stages: (1) making bank notes *legal tender*, (2) introducing bank notes of *small* denomination, as Mephistopheles astutely noted in the Faust story, (3) inventing the *Acceptance House*. The next Lecture will deal with the first two; the third will be the subject of Lecture 11.

The Holder of a Bank Note Is a Creditor to the Bank

When someone accepts a bank note he becomes a creditor of the bank issuing it. This is clear if we consider that the bank note is basically a bill of exchange and the holder of a bill is a creditor. Making it a bearer sight bill does in no way change the creditor-debtor nexus. Mises demurs: "A person who accepts and holds [bank] notes grants no credit; he

exchanges no present good for future good . . . The [bank] note is a present good just as much as the money" (*op.cit.*, p 304-305). The fact that the bank lists the bank note outstanding among its liabilities in the balance sheet does not make Mises to relent. He proves his contention by going, not to the balance sheet, but to the profit and loss statement which shows that the profit from the outstanding bank note accrues to the bank, not to the holder of the bank note. I cannot accept this argument. The profit arises from the discount that the holder of the bank note could collect, were it not for his conscious decision to forego it. He finds it more convenient to hold the bank note instead of the bill of exchange. He deliberately confers that profit, which could be his, to the bank, in exchange for a service that he considers more valuable.

Mises continues: "Is it then correct to say that when the bank discounts bills it does nothing but substitutes a convenient note currency for an inconvenient bill currency? Is the bank note really nothing but a handier sort of bill of exchange? By no means" (*op.cit.*, p 307). In the rest of the argument Mises goes into the question whether the bank, in extending a loan in the form of bank notes, contributes to the *demand* for or to the *supply* of credit. If it is the former, then the bank's action tends to raise the rate of interest; otherwise it tends to lower it. Here we got to the bottom of the disagreement. *Mises does not recognize the difference between the rate of interest and the discount rate.* My position is that as long as the bank holds only gold and self-liquidating bills to cover the bank note issue, it changes neither the supply of nor the demand for credit. There is no change either in the discount rate or in the interest rate. The case where the bank holds less marketable assets to cover the bank note issue will be discussed in Lecture 11 on the Acceptance House.

* * *

Mises by North

Dear Gary:

I am struggling with your statement that "money is not a measure of value" (Gary North, *Mises on Money*, Part I: Money, a market-generated phenomenon) supported by various quotations from Mises.

We are in complete agreement that the value of goods had its origin in the comparison of utilities to the individual, and under barter there was just no way to measure it, although values could still be compared, subject to the rules of ordinal arithmetic. But then, through the evolution in the marketability of goods, gold has been catapulted into the position of the most marketable good, money. *Prices* emerged for the first time, which could be compared as well as *measured*. They are subject to the rules of *ordinal* as well as *cardinal* arithmetic.

Mises admits that the emergence of money, prices, and "the opportunity for exchange induces the individual to rearrange his scale of values" (*op.cit.*, p 61). This, I take it,

means that he rearranges it to conform to the constellation of prices. Since another individual will rearrange his own scale of values to conform to the same constellation, the valuation of individuals becomes universal. Prices harmonize individual values. Mises says that "if we wish to attribute to money the function to measure prices, then there is no reason why we should not do so" (*op.cit.*, p 62). Thus the standard gold coin is rightly called the *unit of value*, and the price is rightly called *the measure of value*.

I am a professional mathematician and through my long career I have been trying hard to convince my layman friends that mathematics is much more than a science of counting and measuring. In particular, it is also a science of comparing. A large branch of mathematics called *lattice theory*, which also embraces ordinal arithmetic, is devoted exclusively to the study of comparing (ordering). In a typical lattice one cannot measure for lack of a metric. But then, there are also metric lattices in which both order and metric obtain, and the metric is compatible with the order. In these lattices comparing and measuring are both possible.

The mathematician is quite comfortable with the idea that in the beginning there was no metric in his lattice. Later, to his delight, he found a way to construct one, moreover, the metric was compatible with the order. To express this formally, let A, B denote goods and let a, b denote their respective prices. Furthermore, let $A d B$ mean that A is valued less than B . Then compatibility can be stated as follows: $A d B$ if, and only if, $a < b$. If there was a pair of goods A, B such that $a < b$ but $A e B$ (meaning that A is valued more than B even though it is the cheaper of the two) then arbitrageurs would buy A and sell B , and keep doing it until the anomaly in prices disappeared. This refutes Mises' dictum that it is "unscientific [to] attribute to money the function of acting as a measure of price or even of value" (*op.cit.* p 61). Money does more. Through the market, money harmonizes individual valuations to become a universal valuation, applicable to all individuals, as manifested by the constellation of prices.

I would be grateful if you could show me the weak point in this argument.

Yours, etc.

Antal

References

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GOLD STANDARD UNIVERSITY

SUMMER SEMESTER, 2002

Monetary Economics 101: The Real Bills Doctrine of Adam Smith

- Lecture 1: Ayn Rand's Hymn to Money
- Lecture 2: Don't Fix the Dollar Price of Gold
- Lecture 3: Credit Unions
- Lecture 4: The Two Sources of Credit
- Lecture 5: The Second Greatest Story Ever Told; (Chapters 1 - 3)
- Lecture 6: The Invention of Discounting; (Chapters 4 - 6)
- Lecture 7: The Mystery of the Discount Rate; (Chapters 7 - 8)
- Lecture 8: Bills Drawn on the Goldsmith; (Chapter 9)
- Lecture 9: Legal Tender. Bank Notes of Small Denomination
- Lecture 10: Revolution of Quality; (Chapter 10)
- Lecture 11: Acceptance House; (Chapter 11)
- Lecture 12: Borrowing Short to Lend Long; (Chapter 12)
- Lecture 13: Illicit Interest Arbitrage

FALL SEMESTER, 2002

Monetary Economics 201: Gold and Interest

- Lecture 1: The Nature and Sources of Interest
- Lecture 2: The Dichotomy of Income versus Wealth
- Lecture 3: The Janus-Face of Marketability
- Lecture 4: The Principle of Capitalizing Incomes
- Lecture 5: The Pentagonal Structure of the Capital Market
- Lecture 6: The Definition of the Rate of Interest
- Lecture 7: The Gold Bond
- Lecture 8: The Bond Equation
- Lecture 9: The Hexagonal Structure of the Capital Market
- Lecture 10: Lessons of Bimetallism
- Lecture 11: Aristotle and Check-Kiting
- Lecture 12: Bond Speculation
- Lecture 13: The Blackhole of Zero Interest

IN PREPARATION: COURSES TO BE OFFERED IN 2003

Monetary Economics 201: The Bill Market and the Formation of the Discount Rate

Monetary Economics 202: The Bond Market and the Formation of the Interest Rate