

Lecture 5:

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GOLD STANDARD UNIVERSITY

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Monetary Economics 101: The Real Bills Doctrine of Adam Smith

Lecture 5

THE SECOND GREATEST STORY EVER TOLD

- Chapters 1-3 -

- Origins of the Real Bill -

- The Miracle of One Gold Coin Performing the Job of Three -

- A Small Step for One Man, But a Giant Step for Mankind -

- Clearing at the Great Medieval Fairs -

The Evolution of Paper Currency

Fable has it that paper currency came into being as warehouse receipts issued by the goldsmith against gold left on deposit for safe-keeping. The owners found that they could make purchases with these warehouse receipts as easily as with gold coins. Then the goldsmith went on lending out at interest his fictitious warehouse receipts. According to

this fable, the fraudulent business of the goldsmith in issuing warehouse receipts against non-existent gold was the embryonic form of the fractional-reserve banking of today.

The unsurpassable naivety of this fable raises the question how serious students of money and credit have found it possible to treat it with respect. We should credit our ancestors with more intelligence and acuity than assuming that they fell so easy a victim to such a crude swindle, or that they meekly continue to be victimized long after the fraud has been exposed. To be sure, there was fraud aplenty in the actual process of introducing bank notes but, as we shall see, it was far more subtle and far more sophisticated than the crude device of issuing warehouse receipts on non-existing gold.

In reality, the evolution of paper currency takes its origin in the invention of the negotiable bill of exchange, the real bill. This was a wonderful invention. There was nothing sinister about it. The process was perfectly natural. Some authors maintain that the bill of exchange has been around since time immemorial. Harley Withers in his book (*The Meaning of Money*, London, 1910, p 38) quotes an authority as saying that the bill of exchange was, in its original form, probably nothing more than a letter of credit from a merchant in one country to his debtor: a merchant in another, requiring him to pay the debt to a third party, namely, to the bearer of the letter who happened to be traveling to the place where the debtor resided. It turned out that the bearer could with advantage assign his letter of credit to another by endorsing, and there could be several such endorsements before the letter was finally presented to the debtor for final settlement.

The only evidence that indeed there might have been such a circulation of letters of credit is an obscure quotation from Cicero. In a letter to Atticus, Cicero asks whether he could send money to his son in Athens by exchange operations. This passage is, of course, not a proof that bills of exchange circulated in Rome and its overseas possessions. Be that as it may, in view of the voluminous trade between Rome and Athens, it is possible that the acute and quick-minded Greeks devised some exchange mechanism to clear the credits arising from the trade of goods between these two busy cities.

Here we assume that bills of exchange as we know them from the earliest extant specimens came into use in Florence, Venice, and Genoa in the 14th century. Either one of these cities could have been the scene of *The Second Greatest Story Ever Told*, an attempt to reconstruct the process whereby the bill of exchange, or real bill, was invented. The story will be told in twelve chapters. I call it the 'second' greatest story (the 'first' being the Bible) in order to emphasize moral philosophy that continues to provide background to the history of money in the spirit of Adam Smith.

The Second Greatest Story Ever Told

Chapter One

in which the gentle reader learns about the miracle of one gold coin performing the job of three

The cotton dealer shipped cotton to the spinner and billed him for goods received. The spinner 'accepted' the bill, that is, he acknowledged receipt of goods by writing across the face of the bill 'I accept' over his signature. This signified his acceptance of the responsibility to pay the face value of the obligation at maturity. He then returned the bill to the cotton dealer pending settlement in coins.

Having spun the cotton, the spinner shipped the yarn to the weaver and billed him. The weaver accepted the bill and returned it to the spinner pending settlement in coins.

Having woven the yarn, the weaver shipped the cloth to the clothier and billed him. The clothier accepted the bill and returned it to the weaver pending settlement in coins. The journey of the same cotton on its way to the consumer has spawned three separate bills, each held by a particular supplier, pending settlement at maturity.

Now the clothier had cash-paying customers, the ultimate consumers of cloth. After the cloth was sold, he had the gold coin given up by the consumer. When the bill drawn on him matured, and the weaver presented it to him for payment, the clothier passed on the gold coin of the consumer. After adjustment was made in small change for the difference in the face value of the bill and that of the gold coin, the weaver-on-clothier bill was marked 'paid'.

Soon afterwards, the spinner presented his bill to the weaver for payment who paid it by passing along the gold coin of the consumer. After adjustment in small change, the spinner-on-weaver bill was marked 'paid' by the spinner.

Finally, the cotton dealer presented his bill to the spinner for payment, who paid it by passing along the same gold coin of the consumer. After adjustment in small change, the dealer-on-spinner bill was marked 'paid' by the dealer. The cycle of supplying the consumer with cloth was complete. In the end, no one owed anybody anything.

The remarkable feature of this primitive clearing system is that the use of bills has increased the efficiency of the gold coin four-fold. In the absence of bills the pool of circulating gold coins would have had to be invaded and drawn upon four times in order to move cotton to the ultimate consumer. As it happened, the pool of gold coins wasn't invaded even once. The single gold coin of the consumer given up in exchange for the finished cloth was sufficient to extinguish all the claims arising along the journey of the cotton from the dealer to the consumer. It is also clear that, regardless how roundabout the journey of the cotton may, due to further division of labor, become in the future, the

single gold coin of the consumer will always be sufficient to extinguish all the claims arising along the cotton's journey. To put the matter differently, the gold standard is no longer a fetter upon technological progress and further division of labor, as it would be in the absence of the bill of exchange. The number of hands engaged in the movement of cotton to the ultimate consumer can increase from four to fourteen, and later to forty if necessary, without adding any new demand for additional gold coins. The lengthening of the production and distribution process, of course, represents specialization, improved technology, better tools, cost reduction, in one word: greater efficiency. The bill of exchange has opened up new avenues for progress, leading to great improvements in the condition of human life on earth. Technological progress will never again be obstructed by a dearth of gold.

Time is obviously a factor in the cycle of supplying the consumer with cloth. We may assume that the journey of cotton from the dealer's warehouse to the consumer takes, on the average, three months to complete and, accordingly, the dealer-on-spinner bill is drawn to mature in 3 months. The journey of yarn from the spinner to the consumer takes two months to complete and, accordingly, the spinner-on-weaver bill is drawn to mature in 2 months. Finally, the journey of cloth from the weaver to the consumer takes one month to complete and, accordingly, the weaver-on-clothier bill is drawn to mature in 1 month. In this way, although the three bills have different life-spans, they will all mature on the same day, facilitating settlement.

Chapter Two

in which the gentle reader learns about an innovation enabling the consumer to choose from a variety of cloth three times as great as before, without it costing anybody a penny

One day the clothier told the weaver that he would be glad to carry an inventory of cloth three times as large, in order to enable his customers to select from a greater variety of cloth. Naturally, the weaver was delighted with the proposal, and agreed to draw 3-month bills on the clothier instead of 1-month bills as before, since an inventory 3 times as large may take 3 times longer to clear. Now the weaver needed different types of yarn to weave a greater variety of cloth. He figured that he could use half again as much yarn as before. His new inventory of yarn, being 1 and 2 times larger, may take 1 and 2 times longer to clear. Accordingly, the spinner agreed to draw 3-month bills on the weaver, instead of 2-month bills as before. In his turn, the spinner need not keep a larger inventory of cotton on hand because all yarn was coming out of the same bale.

Now all three merchants: the cotton dealer, the spinner, and the weaver were drawing bills not only with the same maturity date, but also with the same life-span

of 3 months. The new system worked very well indeed. New supplies were ordered, and bills drawn on them matured monthly, instead of quarterly as before. Consequently, adjustments to the changing taste of the consumer could be made more readily. The clothier had no plans to enlarge his inventory of cloth any further, and had no reason to request the weaver to extend the maturity date of his bills beyond three months.

At any rate, the weaver would have had solid grounds to resist such a request. If the cloth moved faster due to brisker consumer demand, the adjustment would have to be made, not through the size of inventory, but through that of the monthly shipments. Three months (or 13 weeks, or 91 days) is just the length of the seasons. If the clothier could not sell a certain kind of cloth in 91 days, then he might not be able to sell it for 365 days, before the same season of the year came around once more. However, by that time fashion could change beyond recognition, and the clothier might not be able to sell the cloth out of vogue except at a loss. For this reason, there is an unacceptable risk involved in drawing bills of exchange with maturity 92 days or longer. A slow inventory of cloth that may take more than 3 months to sell cannot be financed through clearing. Its journey to the consumer must be financed through borrowing. A bill of exchange must always represent merchandise that moves, and move it must fast enough so that the shelves in the retail store can be cleared once every quarter.

Chapter Three

in which the gentle reader learns about another invention: that of making one bill do the job of three.

The drawer of the bill is making his first tentative steps to put the bill into circulation

"a small step for one man, but a giant step for mankind".

Some time later our tradesmen met in a pub, and over a pint of beer discussed the success in financing the production and distribution of their merchandise through real bills, as well as a new proposal of the clothier to simplify their billing further. The clothier pointed out that one bill could in fact do the work of all three, as the title to the proceeds could easily be transferred to the next holder by endorsing. "At the end of the first month the weaver will endorse the bill", the clothier explained, "and pass it on to the spinner in payment for the yarn, after the necessary adjustment in the outstanding amounts is made in small change." The weaver got the point and added: "At the end of the second month the spinner, after endorsing the very same bill, will pass it on to the cotton dealer in payment for the cotton, not forgetting to make the adjustment in small change for the difference in the outstanding amounts." The spinner also chimed in: "And at the end of the third month the bill will mature. The cotton dealer can collect his receivables." The spinner raised his glass and, turning to the clothier continued: "And you, my friend, will have the gold coin to pay him! By that time the entire inventory of cloth will

have been sold for gold coins. I salute you for your brilliant idea of turning the bill into currency!"

The tradesmen were enthusiastic. The experiment came through with the flying colors. This was a veritable breakthrough. The physical movement of the gold coin was reduced to its irreducible minimum - without any loss of mobility of goods. The payment of gold by the clothier to the cotton dealer, as it were, 'telescoped' the three payments occasioned by the movement of cotton from the producer to the consumer into one. The economy in the movement of gold was achieved by giving temporary monetary privileges to the bill drawn on the clothier. The weaver-on-clothier bill could henceforth 'circulate' before its maturity date. It was readily accepted by the spinner and the cotton dealer in payment, neither of whom was a party to the deal which formed the basis for drawing it. The significance of this discovery could hardly be exaggerated. Credit could now circulate among the tradesmen on the same terms as gold without a hitch. It was also clear that this circulation owed its existence to the movement of the underlying merchandise. The emphasis is on the word 'movement'. The clothier experimented with bills representing stalled merchandise (left unsold from the previous season). He found, to his great regret, that these bills just would not fly.

Of the three, it was the weaver-on-clothier bill that was at the head of the line waiting to be exchanged for the gold coin of the consumer. To use the technical term we say that it was "more liquid" than the others as it could circulate in lieu of cash. The other bills, being less liquid, fell by the wayside. There was no need to draw them any more as the endorsement of the weaver-on-clothier bill was considered payment in cash.

A finished good ready to be sold to the consumer is called a *first order good*. There are also *higher order goods*. An n -th order good is a semi-finished good that is n times removed from the consumer, e.g., the cloth is a 1st, the yarn is a 2nd, and the cotton is a 3rd order good. The acceptor of the bill (in our example, the clothier) is the retail merchant selling the first order good to the consumer, to whom the drawer of the bill (in our example, the weaver) is supplying the second order good. The same bill, after the n -th endorsement, is used to pay for the supply of the $(n + 1)$ -st order good. We shall call this primitive circulation of bills *vertical*. It is confined to the circle of tradesmen engaged in the production of the same merchandise, where one is the supplier of the other. But as we shall soon see, this limitation is not essential. The circulation of the bill before its maturity date would eventually become universal.

I shall briefly interrupt relating *The Second Greatest Story Ever Told* in order to describe another variety of real bill circulation called *horizontal*.

The Merchants of Seville

This is not the title of an opera, nor that of a drama; it refers to one of those great annual medieval fairs which used to attract merchants from very great distances to the fair city such as Leipzig in Germany, Lyon in France, and Seville in Spain, located at the crossroads of great trading routes. The fair itself could last a month or even six weeks. Some of the merchants came from as far as a thousand miles away. All of them came to sell home-produced wares as well as to buy the wares of other regions that could lie another thousand miles away from the fair city in the opposite direction. We could imagine that it must have been well worth the effort of the merchants to travel and spend all this time so far away from home. This was the way to export and import in those days; there was no other. While they carried home-made merchandise in their carriages, one thing they did not carry with them. They did not carry gold. They expected to make their purchases with the proceeds of their sale. The trouble with that was that they had to sell first in order to be able to buy afterwards. This was a fatal limitation. It may have meant missed buying opportunities. This trouble was eliminated by the clearing house of the fair which made it possible for the merchants to buy first and sell afterwards, if they so desired, as we shall now see.

The remarkable thing about these medieval fairs was their clearing system. An enormous quantity of goods exchanged hands (some several times) facilitated by a very small pool of gold coins. How did they do it? Just think for the moment, if you will, about the enormous logistical problem they were facing. Barter was pretty well out. They quoted gold prices, but they realized that the buyer they were dealing with, just like themselves, did not carry gold with him. So how could they make the sale if a prospective buyer was willing to pay the price asked?

Well, they developed an ingenious clearing system using bills of exchange maturing on the last day of the fair. Every merchant registered his merchandise at the clearing house upon arrival. Registration gave them the right to accept bills payable at the clearing house where bills would be offset against one another and only the difference in face values would be paid in gold coins on the last day of the fair. This afforded an amazing economy in the use of the gold coin. It was this economy that was responsible for making the fairs so attractive to merchants coming from far-away places.

We may be certain that without the clearing system there would have been no fair, and trade would have been limited to that between next-door neighbors. If merchants traveling those great distances would have had to carry not only their merchandise for sale, but also the gold coins with which to make their purchases, they would not have undertaken the trip. For one thing, they probably would not have had the gold, which was needed for domestic use. For another, on the long trip they would have offered themselves as easy targets for highwaymen preying upon the purse of traveling merchants.

The circulation of bills of exchange generated at the fair may be described as *horizontal*. They were all drawn on first-order goods ready to be sold to the consumer, and they were passed on from hand to hand between retail merchants (rather than from the producer to his supplier, as in the case of *vertical* circulation).

The medieval fairs were a marvelous institution promoting trade between far-away regions. Not enough research has been done on this subject, especially on the inner workings of the clearing and insurance facilities offered at the fairs.

Real Bills Never Cause Inflation

We have seen that real bills may arise in different settings and facilitate exchanges of goods that may not otherwise come about simply because of the limited supply of gold coins available for trade. If people saw that the goods were in sufficiently urgent demand, and ultimate payment was guaranteed by the fact that the underlying goods would be soon (i.e., before the maturity date) removed from the market by the ultimate consumer paying gold coin for his purchase, then they would take the bill (provided it has been duly accepted) in payment and then use it themselves in paying for their own purchases. Thus bills became the preferred currency of the fair.

Detractors of the Real Bill Doctrine maintain that the circulating bill was inflationary in that it meant an expansion of the pool of circulating purchasing media. However, this position is demonstrably wrong. The bill emerged simultaneously with the emergence of new merchandise in urgent demand of the same value, and would disappear from circulation at the same time when the merchandise was sold. The net effect on the stock of purchasing media was therefore zero.

It is helpful to think of the bill of exchange as an instrument that automatically adjusts the stock of purchasing media to the stock of merchandise to be cleared by the markets. During peak season, when the turnover of merchandise reaches its maximum, the means of payments to move it is readily available. Once the merchandise has been removed from the markets, the extra amount of purchasing media disappears. This means that in low season the pool of purchasing media contracts and there is no excess cash chasing non-existent goods. The whole process of adjustment is automatic, and works without direct intervention on the part of the banks or the government. In fact, the whole system of supplying the consumers with all the goods in high demand through bill circulation will work even in the complete absence of banks.

World Trade Today

Another example of the horizontal circulation is the pre-1914 financing of world trade by drawing bills on London. In this case London acted as the clearing house of a non-stop fair. Merchandise was carried by the merchant navy directly from the exporting to the

importing country. The volume of world trade was huge, it was a two-way street, consequently, the pool of gold coins to finance the movement of merchandise was tiny. Yet the system worked beautifully, thanks to the horizontal circulation of self-liquidating commercial paper. The small and relatively stable pool of gold coins in London could finance the huge volume of world trade as it flowed and ebbed with the seasons.

Compare that with world trade today, which has been governed not by commercial, but by political considerations since World War I and, therefore, has been reduced mostly to one-way flows. The chits of the world's greatest military power are used, under duress, by all trading nations of the world. After the chits have done their job of financing trade they keep piling up, also under duress, in foreign central banks. The nations of the world are lulled into the false belief that these monetary reserves are real, usable when the need arises, and earn interest in a meaningful way. But the cruel truth is that they represent the permanent debt of the United States, the largest debtor of the world (it used to be the largest creditor before 1972, the year when the U.S. defaulted on its gold obligations to foreign central banks). It is a pipedream that the debt of the U.S. plus accrued interest will ever be repaid - certainly not in dollars of the same purchasing power. Take Japan, for example. It could use her enormous dollar reserves it has accumulated over a period of half a century in order to clean up the mess in the Japanese banking system. But while they are may be available to buy a Coca Cola bottling franchise, or use it for the purposes of making small payments to third parties, they are definitely not available for liquidation in larger quantity. It would wreck the bond market, and ruin the credit of the United States government, if Japan insisted on using its monetary reserves to solve its banking crisis. There is simply no way for Japan to liquidate its monetary reserves accumulated under duress.

The United States has dismantled its export industries (with the exception of those of strategic importance) just at the time when it should have expanded exporting capacity in order to service its huge and increasing external debt. It has exported industrial jobs to third world countries in exchange for consumer goods it no longer produces domestically. This means that the trade deficit is to continue, and increase, indefinitely.

The costs of this perverse (not to say insane) system of financing world trade, based as it is on coercion, are enormous. Apart from it causing relentless currency depreciation, the piling up of U.S. government debt in foreign central banks makes overseas holders of dollar balances nervous. For the time being, foreign central banks play the game according to the rules dictated by the U.S. Treasury. They resist the temptation to cash their dollar balances, presumably motivated by thieves' solidarity, that "we had better hang together, lest we hang separately". But when a country breaks ranks and starts liquidating its dollar balances, as is inevitable, all others will run to the exit. The world's monetary system will crash.

Such a crash could never occur under the international gold standard with world trade financed by horizontal bill circulation. Bills of exchange are self-liquidating credit instruments. They cannot pile up in foreign central banks. Once the goods are sold to the ultimate cash-paying consumer, the bills of exchange that financed their trade simply

disappears. Why can't the world return to world-trade to a system of payments using horizontal bill circulation? Because such a system must be a gold-based system, and gold is anathema to the United States Treasury.

Yet this system of bill-circulation is well-worth not only studying but also emulating. The big banks of the world from Japan through Germany to the United States are rushing into bankruptcy with break-neck speed. The central banks won't be in the position to bail them out. Their so-called assets, namely U.S. government debt, are strictly for window-dressing purposes. They are useless as a monetary reserve, if you have illusions to liquidate your holdings in order to pay off your own debts.

We may face an epoch in history without banks, a world in which people will refuse to trust bankers and their promises.

Be prepared!

* * *

Correction:

In Lecture 3 under the caption "The Invisible Vacuum Cleaner" I referred to the recent accounting scandals and mentioned Enron and Westcom. The latter should read "Worldcom".

Bravo for Monetary Economics 101!

Malik Yusuf of Edith Cowan University, Perth, Western Australia writes:

Sir,

Bravo for Monetary Economics 101. A standing ovation for each Lecture. Only the Internet made it possible for me to continue my education outside of the recognized institutions. I have started my studies in economics formally at the late age of 38 as a result of my discovery of your work. If the underlying cause for the excesses of this dark age is as you have diagnosed, then I feel that this is where I should begin my studies, even though I must start from scratch. It is a truly fascinating experience to receive one narrative from the official curriculum, and jostle for high grades with the current generation of students being groomed and indoctrinated with the same, and then, after hours, to obtain my real nourishment and hope for the future from studying your material.

Your most ardent pupil,

Malik Yusuf

We are fortunate indeed that, thanks to the Internet, we need no longer be forced into the straitjacket of orthodoxy and subjected to the brain-washing of official indoctrination. In earlier ages universities were the focal points of intellectual dissent, and resistance to an ossified science and culture. No more. Virtually all universities in the world are now in the service pusillanimity, cringing in front of the thought police that discourages and persecutes independent thinking. Let's hope that there will be lots of initiatives like ours to break the thought-monopoly of governments, and let truth be the winner.

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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: The Revolt 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

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**