The End of Money and the Future of Civilization
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Chapter Ten

The Third Evolutionary Stage—The Emergence of Credit Clearing

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a way of "keeping score" in the economic "game" of give and take.
Thomas H. Greco, Jr.

Let us begin by summarizing the evolution of the various kinds of money that have been used to mediate reciprocal exchange:

1. The circulation of gold and silver coins gave way to paper banknotes that were redeemable for gold or silver coins, which made the notes essentially warehouse receipts for gold on deposit.
2. Then, banks began to lend bank notes into circulation based on the pledge of collateral assets (some valuable and others not) other than gold, some of which included government obligations (bonds, notes, etc.).
3. But ALL notes were redeemable in gold. This became known as the "fractional reserve banking" system.
4. Bank account balances (checkable bank "deposits") increasingly took the place of paper bank notes, and bank customers began to write checks against their deposits instead of using bank notes to make payments.
5. As banks created ever greater amounts of non-bona-fide money based on national government debts and other illegitimate collateral assets, the fiction of gold-backing and redeemability could no longer be supported, and governments reneged on their promise to redeem their currency for gold. This broke the final link between political fiat money and the real economy of valuable goods and services.
6. But, despite that, the emergence of credit clearing to offset credit obligation against credit claims was a major leap forward in facilitating the reciprocal exchange of value.

Banks Implement the Credit Clearing Process

The use of deposits and checks actually represented the introduction of the credit clearing process within the banking system. As Withers pointed out, the creation of money as "deposits" (account balances) rather than banknotes enabled the banks to circumvent the British government's limitations on their issuance of banknotes. Money became abstract, and the role of banks became primarily (1) the vetting of requests for credit upon which they would grant loans, and (2) the clearing of credits among the various depositors' accounts.[1] The banks also used the clearing process to offset obligations among themselves.

Consider this scenario: You receive your salary from your employer in the form of an automatic electronic transfer from your employer's bank account to your bank account. You then go shopping to buy a coat and use your debit card to transfer the price of the coat from your account to the merchant's account. Where is the money in all of this? Each of these transactions merely increased

or decreased the numbers in your account and the accounts of those with whom you do business, in this case your employer and the merchant. Money then becomes merely an accounting system, a way of "keeping score" in the economic "game" of give and take. Your purchases have been indirectly paid for with your sales, which in this example was the sale of your labor services to your employer who paid you "wages."

Everyone who participates in an economy is both a producer **and** a consumer, both a seller **and** a buyer. You were a producer when you sold your labor to your employer in return for your wages, and you were a consumer when you bought the coat from the shop. In general, when you sell something, your account balance increases; when you buy something your account balance decreases. One basic role of a bank is to provide the accounting necessary to adjust the account balances of its "depositors." This process of "clearing" is merely the offsetting of obligations against claims on the ledger of the bank. But banks still prefer to perpetuate the myth that money is a "thing" **which they have on hand** and can lend out to you and others, and it is on that presumption that they maintain that they are justified in charging interest on it. But as we revealed in earlier chapters, banks don't **have** that money; they "**create**" the money they lend out by simply making bookkeeping entries.

Thing or Relationship? Particle or Wave?

Now, in a sense, money can still be considered a "thing," but not in the usual way most people understand the word, "thing." The concept of the "money supply" is still applicable in managing the exchange process in an economy; too little money in relation to the needs of producers and consumers to trade causes recessions and depressions, while too much money in relation to the needs of producers and consumers to trade causes price inflation. But as we described in Chapter 7, it is not only the amount of money which is important, but also how much of that money is bona-fide and how much of it is non-bona-fide. So, money (currency) is something that has a transitory existence; it appears when someone acknowledges an obligation (e.g., an obligation to pay), and it disappears when the obligation is fulfilled (i.e., when money is used to pay).

Here's an analogy that may be helpful. Scientists have two distinct ways of explaining the phenomenon of light. Light can be described as either a particle ("quantum") or as a wave that propagates through some medium. Money or currency can likewise be described as either a quantity of obligations and claims or as fluctuating account balances based on a relationship agreement among traders. We can speak of credit as a thing, particularly when it manifests in the form of a currency note or voucher, but its essence is more easily understood as a fluctuating number on a ledger of accounts.

Figure 10.1 below depicts the process of clearing, which can be thought of as the "wave" nature of money. When a company has made sales that total an amount greater than its purchases within a clearing group, it has a positive clearing balance; when its purchases are greater than its sales within its group, it has a negative clearing balance. Over time, its balance will fluctuate, sometimes being positive and sometimes being negative.

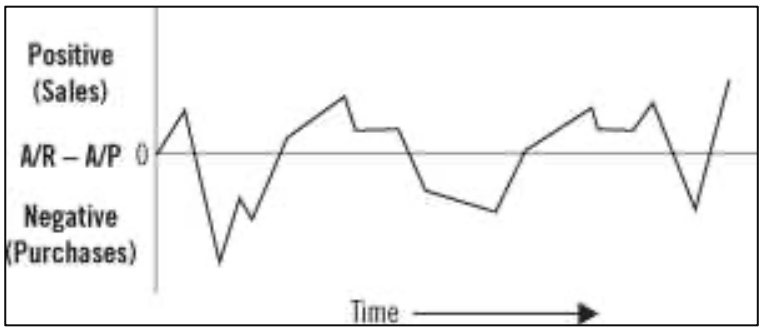

Figure 10.1 Money Viewed as a Wave of ongoing difference between Accounts Receivable (A/R), and Accounts Payable (A/P)

A Confusion of Language

The word "deposit," along with other terminology in banking and finance, is anachronistic—something that has been carried over from the past when commodity money, like gold and silver, was actually deposited in a bank. The words may be the same, but the meanings are entirely different. Think of the way we speak about the things we do every day, like "driving" a car. You don't actually drive it. A car is a machine that you operate. The word "drive" has been carried over from a different time and a different mode of transport, from a time when one would drive a team of horses or mules pulling a wagon; that's why the truck drivers' union is called the Teamsters union. The process, skills, and responses involved in driving a team are quite different from those involved in "driving" a car or truck. The experience of driving a wagon team probably bears a greater resemblance to dog training or coaching a football team than it does to operating a motor vehicle.

Likewise, in the realm of money and banking, such anachronisms include the words "deposit," "reserve," "redemption," and "credit." When money took the form of silver or gold, a deposit was just that, an amount of silver or gold left in the care of a banker. The paper banknotes that the depositor received amounted to deposit receipts. But now, money is merely numbers in an accounting system, and the balance (number) in your account on a bank ledger, while still referred to as a deposit, simply shows your current score or credit in the economic game of put and take. The perpetuation of this dysfunctional system is aided by the confusion that persists over the process of money creation. If we have not made it clear before, let us explicitly state that banks have two fundamental roles. They are at once "depositories" and also "banks of issue"—that is, they accept deposits of existing money, and they also create new money by making loans. A further quote of Quigley's may aid in clarifying this point. He says,

> "…with typical bankers' ambiguity," banks use the same term, "deposits," to refer to things that arise from two entirely different kinds of relationships: (1) "lodged deposits," which were real claims left by a depositor in a bank, on which the depositor might receive interest since such deposits were debts owed by the bank to the depositor; and (2) "created deposits," which were claims **created by the bank out of nothing as loans from the bank to "depositors"** who had to pay interest on them since they represented debt from them to the bank. In both cases, of course, checks could be drawn against such deposits to make payments to third parties, which is why both were called by the same name. **Both form part of the money supply."**[2] [emphasis added]

An Example of Credit Clearing Among Banks

The clearing process has long been used by banks to settle claims arising from checks drawn on one another. They have accomplished this by means of a "clearinghouse," which long ago was established in every urban community of significant size. A clearinghouse is defined as "an association of commercial banks, brokerage houses, central banks or other institutions established to settle simultaneously the claims of its members to one another."[3]

Because the credit clearing process has been highly developed within the banking sector, it is illuminating to review a bit of its history of development and how it was managed in earlier times. Here is an account of clearing from The Illustrated Columbia Encyclopedia:

> "Before the introduction of clearinghouses each bank periodically sent runners to other banks. The clearinghouse instead holds meetings of representatives of all banks in a given area to adjust claims. The New York Clearing House, for example, clears five times daily. Each bank sends a delivery clerk and a settling clerk to the house; they bring with them bundles of checks and other obligations due [to] their banks from other banks, each bank being represented by a separate package. Lists of these obligations are handed to an inspector before clearing begins; the total of the lists is the total amount to be settled that day. When clearing begins, each delivery clerk passes from one desk to another, depositing on each, his bank's claims upon the bank represented at that desk. When a settling clerk at any one desk has received all his packages, he draws up a statement of the demands made upon his bank, as shown by the totals of the packages. He sends this to the manager of the clearinghouse, along with the total that his bank is owed. When all settling clerks have done this, the accounts are examined and proved, and the manager certifies the amounts that each bank owes to and is entitled to receive from the other banks. A settlement in cash or credit is then made or received by each bank. **Thus, settlements are effected without the transfer of cash or by the transfer of a much smaller amount than would otherwise be needed.** All packages of claims are accepted at the clearinghouse desks without examination; they are later carried back to the banks receiving them and are there examined. If any claims are found invalid, the banks concerned rectify the error without using the clearinghouse.[4]" [emphasis added]

In order to fully explain this process of "clearing," let us take it down to the level of individual bank accounts and trace the movement of claims and obligations through the banking system. It has long been the practice of banks in a particular region to accept for deposit, checks that are drawn upon each other's account holders.

Let's consider several possibilities, starting with the simplest case. Consider a transaction in which Amy buys a piece of artwork from Andrew for $100 and pays for it by writing a check drawn on her checking account at Alpha Bank. Suppose, too, that Andrew also has a checking account at Alpha Bank. When Andrew deposits the check into his account at Alpha Bank, it is strictly an internal matter for Alpha Bank—which credits Andrew's account (increases his balance) and debits Amy's account (decreases her balance) by the same amount (in this case, $100). The total amount of deposits held by Alpha Bank does not change as a result of this transaction.

Next, consider another transaction in which Amy buys a bicycle from Brandon for $200. Again, she pays by writing a check drawn on her checking account at Alpha Bank. Now Brandon happens to have his account at Bravo Bank, so when he deposits Amy's check into his account, that creates an obligation of Alpha Bank to Bravo Bank. Bravo Bank will at some point present Amy's check to Alpha

Bank and funds must be transferred from Alpha Bank to Bravo Bank. This action is called "account settlement" between banks.

Next, consider that Alpha and Bravo are the only banks in a town, and that each day there are many such transactions. As account holders of the two banks write checks to one another, each check represents funds that must be transferred from one bank to the other. Suppose account holders of Alpha Bank write checks to account holders of Bravo Bank amounting to $1,500,000, while depositors of Bravo Bank write checks to depositors of Alpha Bank totaling $1,450,000. After all the checks have been cleared, Alpha Bank will owe Bravo Bank the net difference between the two amounts, $50,000. Note that the total amount of business transacted between depositors of the two banks amounted to $2,950,000, but only $50,000 had to be transferred at the end of the day from one bank to the other to settle their obligations. The greater the number of banks involved in the clearing process, the more complex the accounting becomes, but the basic process remains the same.

Consider next an example involving three banks—Alpha, Bravo, and Charlie. Suppose that after all checks have been tallied, the balances are these:

Alpha owes Bravo $43,000
Bravo owes Alpha $39,000
Alpha owes Charlie $51,000
Charlie owes Alpha $44,000
Bravo owes Charlie $61,000
Charlie owes Bravo $57,000

The net balances between pairs show that Alpha owes Bravo $4,000 ($43,000 – $39,000), Alpha owes Charlie $7,000 ($51,000 – $44,000), and Bravo owes Charlie $4,000 ($61,000 – $57,000).

If each were to pay the others what is owed,
Alpha would pay Bravo $4,000,
Alpha would pay Charlie $7,000, and
Bravo would pay Charlie $4,000.

This is shown in the diagram in Figure 10.2.

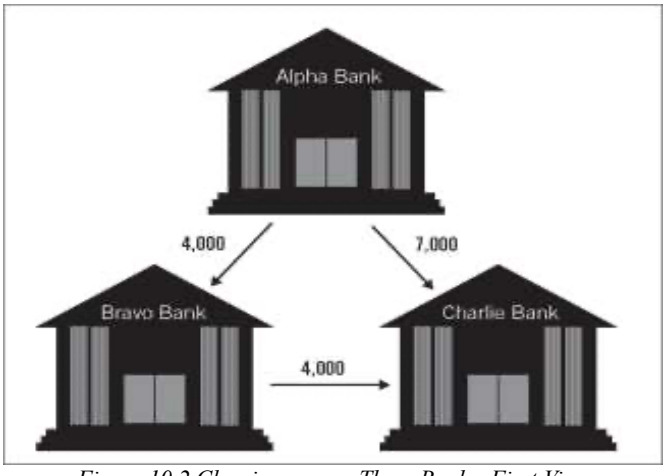

Figure 10.2 Clearing among Three Banks, First View

However, in the clearing process each participant effectively pays into or takes out of a virtual "pool." In this case,
Alpha puts in $11,000,
Bravo puts in nothing and takes out nothing, and
Charlie takes out $11,000. This is depicted in Figure 10.3.

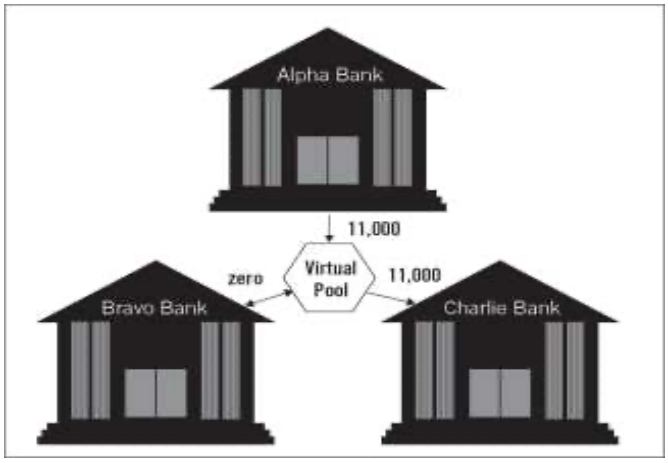

Figure 10.3 Clearing among Three Banks, Second View

The important point to understand is that in multiparty clearing what you owe to one party can be cleared or netted against what some other party owes to you. In effect, your debtors (those who owe you) pay your creditors (those whom you owe). So, in our example, Bravo's debt to Charlie was, in effect, paid by Alpha. This is depicted in Figure 10.4.

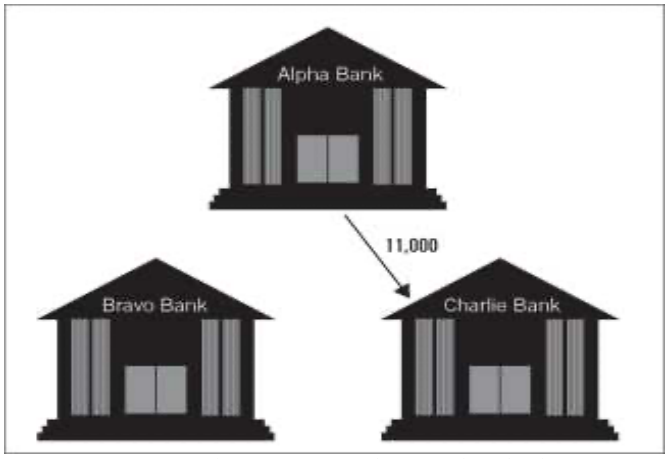

Figure 10.4 Clearing among Three Banks, Third View

Note, too, that the net transfer of funds required to settle all accounts was only $11,000 even though total exchanges among the three banks of $295,000 were transacted. The total transactions might easily have been in the millions or billions, and the net amount might just as easily have come out to an even smaller number than the one in our example. Sometimes a particular bank will be a net recipient of funds, at other times it will be a net payer of funds—but over the long run, each bank's settlement amounts should balance out; if not, that bank might be on its way toward failure. A bank whose settlement balances are chronically and increasingly negative might soon become insolvent.

According to Ulrich von Beckerath, a legend has it that the "runners" themselves, meeting in a central coffee shop, really invented the clearing house in London "to save their legs." Their bosses merely sanctioned their practice once they came to understand it.[5]

By means of the clearing process, banks collectively clear millions of checks a day. With the advent of modern computers and communications technologies, the detailed procedures have changed, but the essential process remains the same. Indeed, these technologies enable clearing to be a continuous and instantaneous process, and the clearinghouse has morphed into a computer network. The checks and other claims that are now processed electronically may add up to enormous sums in monetary terms, but when they are netted out against one another, the amounts owed by and to each bank will typically end up being a very small fraction of the total amount of claims that have been processed.

Settlement of Accounts

As shown above, at any given point in the clearing process, some accounts will be negative (they will owe some amount to the group) and some will be positive (they will be owed some amount by the group). A central bank can be thought of as the bankers' bank that provides the service of multilateral clearing (even though that is not a central bank's fundamental purpose, as we discussed in previous chapters).

If banks can clear obligations among themselves, why can't all buyers and sellers of goods and services use the same process to clear their obligations in the same way? Indeed, they can, and we will describe how it's done in the next chapter.

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[1] Hartley Withers, *The Meaning of Money*, 7th ed., 1947. Chapter 3, pp. 17-28.
[2] Quigley, Tragedy and Hope, p. 55.
[3] Christine Ammer and Dean Ammer, *Dictionary of Business and Economics.* (1986)
[4] William Bridgwater and Seymour Kurtz, eds., *The Illustrated Columbia Encyclopedia* (1972).
[5] John Zube, personal correspondence, February 14, 2006.