

**TESTIMONY BEFORE**  
**THE U.S. HOUSE COMMITTEE ON FINANCIAL SERVICES**  
**SUBCOMMITTEE ON MONETARY POLICY**

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Chairman Paul, Ranking Member Clay and members of the Subcommittee, I am deeply honored to appear before you to testify on the topic of fractional-reserve banking. Thank you for your invitation and attention.

In the short time I have: I will give a brief description of fractional reserve-banking; identify the problems it presents in the current institutional setting; and suggest a potential solution.

A bank is simply a business firm that issues claims to a fixed sum of money in receipt for a deposit of ready cash. These claims are cashable *on demand* and without cost to the depositor. In today's world these claims may take the form of checkable deposits, so called because they can be transferred to a third party by writing out a check payable to the party named on the check. They may also take the form of so-called "savings" deposits with limited or no checking privileges and that require withdrawal in person at one of the bank's branches or at an ATM machine. In the United States, the cash for which the claim is redeemable are the Federal Reserve Notes or "dollar bills" that we are all familiar with. These dollar bills are the ultimate cash of the contemporary U.S. monetary system.

Fractional-reserve banking occurs when the bank lends or invests some of its depositors' funds and retains only a *fraction* of the deposits in cash. This cash is

the bank's reserves. Hence the name fractional-reserve banking. All banks today both domestically and abroad engage in fractional-reserve banking

Let me illustrate how fractional-reserve banking works with a simple example. Assume a bank with deposits of \$1 million makes \$900,000 of loans and investments. If we ignore for simplicity the capital paid in by its owners, this bank is holding a cash reserve of 10 percent against its deposit liabilities. The deposits constitute the bank's liabilities because the bank is contractually obligated to redeem them on demand. The assets of the bank are its reserves, loans, and investments. Its assets then are ready cash as well as IOUs and securities that give it title to sums of cash payable in the near or distant future. The noncash assets include short-term business loans, credit card loans, mortgage loans and the securities issued by the U.S. Treasury and foreign financial authorities.

Now the key to understanding the nature of fractional-reserve banking and the problems it creates is to recognize that a bank deposit is not itself money. It is rather a "money-substitute, that is, a claim to standard money—dollar bills—that people regard as completely secure. Bank deposits transferred by check or debit card will be routinely paid and received in exchange in lieu of money *for as long as the public does not have the slightest doubt that the bank which creates these deposits is able and willing to redeem them without delay or expense* (either to the depositor or to the party that he has paid by check or debit card). Under these

circumstances, bank deposits are eagerly accepted and held by businesses, investors, and workers and are regarded as indistinguishable from cash itself. They are therefore properly included as part of the money supply, that is, the total supply of dollars in the economy.

The very nature of fractional-reserve banking, however, presents a problem for the bank itself. On the one hand, all of a bank's deposit liabilities mature on a daily basis, because it has promised to cash them in on demand. On the other, only a small fraction of its assets is available at any given moment to meet these liabilities. For example, during normal times, U.S. banks effectively hold much less than 10 percent of deposits in ready reserves. The rest of a bank's liabilities will only mature after a number of months, years, or, in the case of mortgages, even decades. In the jargon of economics, fractional-reserve banking always involves "term structure risk" arising from the mismatching of the maturity profile of its liabilities with that of its assets. In layman's terms, banks "borrow short and lend long." The underlying problem is revealed when the withdrawal of deposits exceeds a bank's cash reserves at any moment in time. The bank is then compelled to hastily sell off some of its longer-term assets, many of which are not readily saleable. It will thus incur big losses. This will cause a panic among the rest of its depositors who will scramble to withdraw their deposits before they become worthless. A classic bank run will ensue. At this point the value of its remaining

assets will no longer be sufficient to pay off all its fixed-dollar deposit liabilities and the bank will fail.

A fractional-reserve bank, therefore, can only remain solvent for as long as public confidence exists that its deposits really are riskless claims to cash. If for any reason—real or imagined—the faintest suspicion arises among its clients that a bank's deposits are no longer payable on demand, the bank's reputation vanishes overnight. The bank's brand of money-substitutes is instantly extinguished and people rush to withdraw their deposits in cash—cash that no fractional-reserve bank can provide on demand in sufficient quantity. Thus overnight extinction of its product brand and insolvency is always looming over fractional-reserve banks.

The ever-present threat of insolvency is the least of the problems with fractional reserve banks, however, since its effects are restricted to the bank's stockholders, creditors and depositors who voluntarily assume the peculiar risks involved in this business.

The major problems of fractional-reserve banking are its harmful effects on the overall economy. I will describe two of these problems.

First, fractional-reserve banking is inherently inflationary. When a bank lends its clients' deposits, it inevitably expands the money supply. For example, when clients deposit an additional \$100,000 of cash in the bank, depositors now

have an additional \$100,000 in their checking accounts while the bank accumulates an additional \$100,000 of cash (dollar bills) in its vaults. The total money supply, which includes both dollar bills in circulation among the public and dollar balances in bank deposits, has not changed. The depositors have reduced the amount of cash in circulation by \$100,000, which is now stored in the bank's vaults, but they have increased the total deposit balance that they may draw on by check or debit card by the exact same amount. Suppose now the loan officers of the bank lend out \$90,000 of this added cash to businesses and consumers and maintain the remaining \$10,000 on reserve against the \$100,000 of new deposits. These loans increase the money supply by \$90,000 because, while the original depositors have the extra \$100,000 still available on deposit, the borrowers now have an extra \$90,000 of the cash they did not have before.

The expansion of the money supply does not stop here however, for when the borrowers spend the borrowed cash to buy goods or to pay wages, the recipients of these dollars in turn redeposit some or all of this cash in their own banks, which in turn lend out a proportion of this cash. Through this process, bank deposit dollars are created and multiplied far beyond the amount of the initial cash deposits. (Given the institutional conditions in the U.S. today, each dollar of currency deposited in a bank can increase the U.S. money supply by up to a maximum of \$10.00). As the additional deposits dollars are spent, prices in the

economy progressively rise and the inevitable result is inflation with all its associated problems.

Fractional-reserve banking inflicts another great harm on the economy. In order to induce businesses and consumers to borrow the additional dollars created, banks must lower interest rates below the market equilibrium level determined by the amount of voluntary savings in the economy. Businesses are misled by the artificially low interest rates into borrowing to expand their facilities or undertake new long-term investment projects of various kinds. But the profitability of these undertakings depends on expectations that bank credit will remain cheap more or less indefinitely. Consumers, too, are deceived by the lower interest rates and rush to purchase larger residences or vacation homes. They take out second mortgages on their homes to buy big-ticket luxury items. A false economic boom begins that is doomed to turn into a bust as soon as interest rates rise again.

As the inflationary boom progresses the demand for credit becomes more intense and more cash is withdrawn from bank deposits to finance the purchase of everyday goods whose prices are rising. The banks react to these developments by raising interest rates and contracting loans and deposits. During the recession that follows the binge of bad investment and overconsumption is starkly revealed in the abandoned construction projects, empty commercial buildings, and foreclosed homes that litter the economic landscape. At the end of the recession it turns out

that almost all households and business firms are made poorer by fractional-reserve bank credit expansion, even those who initially gained by the inflation.

Now the inflation and the boom-bust cycles generated by fractional reserve banking are enormously intensified by Federal Reserve and U.S. government interference with the banking industry. The most pernicious forms of such interference are: the power of the Federal Reserve to create bank reserves out of thin air via open market operations; its use of these phony reserves to bail out failing banks in its role as a lender of last resort; and federal insurance of bank deposits. In the presence of such policies, the deposits of all banks are perceived and trusted by the public as one homogeneous brand of money substitute fully guaranteed by the Federal government and backed up by the Fed's power to print up bank reserves at will and bail out insolvent banks. Under this monetary regime, there is absolutely no check on the natural propensity of fractional-reserve banks to mismatch the maturity profiles of their assets and liabilities, to expand credit and deposits, and to artificially depress interest rates. We can expect bubbles to continually grow in various sectors of the economy and the subsequent financial crises to continue unabated.

The solution to our problems is to treat banking as any other business and permit it to operate on the free market—a market completely free of government guarantees of bank deposits and of the possibility of Fed bailouts. In order to

achieve the latter, the Fed would have to be permanently and credibly deprived of its legal power to create bank reserves out of nothing. The best way to do this is to establish a genuine gold standard in which gold coins would circulate as cash and serve as bank reserves; at the same time the Fed must be stripped of its authority to issue notes and conduct open market operations. Also, banks would once again be legally enabled to issue their own brands of notes, as they were in the nineteenth and into the early twentieth century.

Once this mighty rollback of government intervention in banking is accomplished, each fractional-reserve bank would be rigidly constrained by public confidence when issuing money-substitutes. One false step—one questionable loan, one imprudent emission of unbacked notes and deposits—would cause instant brand extinction of its money substitutes, a bank run, and insolvency.

In fact on the banking market as I have described it, I foresee the ever-present threat of insolvency compelling banks to refrain from further lending of their deposits payable on demand. This means that if a bank wished to make loans of shorter or longer maturity, they would do so by issuing credit instruments whose maturities matched the loans. Thus for short-term business lending they would issue certificates of deposits with maturities of three or six months. To finance car loans they might issue three-year or four-year short bonds. Mortgage lending would be financed by five or ten year bonds. Without government institutions like

Fannie Mae and Freddie Mac implicitly guaranteeing mortgages, and in absence of the relentless appreciation of housing prices due to inflation, mortgage loans would probably be transformed into shorter five- or ten-year balloon loans. the bank may retain an option to roll over a mortgage loan when it comes due pending a re-evaluation of the mortgagor's current financial situation and recent credit history as well as the general economic environment. In short, on a free market, fractional-reserve banking with all its inherent problems would slowly wither away.