

## Money Creation

As things stand today, there are three primary means of creating money--which is to say inflation--in the United States,. The primary means of creating money is for the Federal Reserve to buy up securities, which is called "Open Market Operations". The Federal Reserve can literally write checks for any amount that are backed by nothing. There is no account anyone can refer to that had money in it prior to that check being written. They can write it to whomever they want. They can buy up Euros. They can buy mortgage-backed securities, stocks, and derivatives. They of course buy up a significant number of the Treasury Bonds that are used to finance the national debt<sup>1</sup>.

They write the check, and it clears, and the money is now "created". Those dollars are in circulation. Quite often they buy up securities that nobody else wants. Wherever their people are in trouble, you will find them pumping money in. The converse of this, of course, is that when they sell the securities they contract the money supply, which is deflationary. This is by far the most important tool of "monetary policy", which is to say controlling the amount of money in existence.

The second means is through the Discount Window. This is the ability of banks to borrow directly from the Fed. In general, these are overnight loans made so banks can balance their books on days after depositors take out more than the bank actually has in reserve. The money is created when the loan is made.

There are two different interest rates charged—a primary and a secondary--depending on how good the credit of the bank is. There is also a third type of loan which is seasonal, that primarily affects farmer's banks, who lend money for seeds, then collect once the harvest comes in and is sold.

Practically, this method of money creation is not that important, since as a matter of policy the Fed sets the interest rate for loans originated here above what is called the Federal Funds Rate, which will be discussed below. That shift only seems to have happened some twenty or so years ago, though, so historically the Discount Window was much more important.

The third means of money creation is the institution of fractional reserve banking itself. This is crucially important. The Federal Reserve's role in this is its legal authority to tell banks how much money they have to keep in reserve. Since they haven't changed it in many years, this is an unimportant tool, practically, for the Fed, but it is the source of the so-called "multiplier" affect, such that one new dollar created through Open Market Operations can create some \$10 or more dollars down the line.

Currently, the required reserve amount is 10%<sup>2</sup>. This means that 10% of the money deposited in the bank must be kept in cash in the vault, or in a reserve account in the Federal Reserve system. (Side note: The way physical cash—which is not all that important in the overall scheme of things--gets distributed is banks place an order to convert some percentage of their deposit with the

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<sup>1</sup> Not the majority, though: most of them are owned by private investors and foreign governments.

<sup>2</sup> For banks with more than \$55 million in deposits. It is 0% for banks under \$10.7 million in deposits, and 3% for those in the middle : <http://www.federalreserve.gov/monetarypolicy/reservereq.htm>

Federal Reserve into cash. Their account is debited, and a few days or weeks later, the Brinks truck shows up. The money is physically manufactured by the Treasury, and warehoused by the Fed. )

Let's run through all three methods, using the housing industry. Assume, for simplicities sake, that Main Street Bank has \$1 million in capital. \$100,000 was put in by the men and women who started it, and \$900,000 came from depositors who placed their money in checking and savings accounts. They can loan out \$900,000, which leaves them with a \$100,000, 10% reserve<sup>3</sup> They loan all of it, for simplicities sake, to one person, John Smith, for a \$1 million home. John puts down the first \$100,000, which goes to the owner. This makes it harder for him to walk away from the house, and therefore makes foreclosure less likely.

The way this gets logged on the ledger is as follows: on the Asset side you still have the original \$1 million, to which is now added \$900,000 in "receivables"--which is to say money owed. Total assets equal \$1.9 million.

On the debit side—which is to say money owed—you have \$900,000 in deposits (since you owe that money, but not the money the investors put in, since you are the investors), and the \$900,000 for the loan, for a total of \$1.8 million. The reason the \$900,000 is a debit is because you wrote the check. You paid the builder and the real estate agent and whoever else got a cut on that house. That went out as checks that got cashed. John Q. Smith Builders, Inc. spent \$700,000 on framers, plumbers, painters, concrete, materials, etc., and they all need to get paid, and they do. They keep the rest. You literally spent every cent the depositors entrusted you with, less the down payment. (All of this money flows into banking accounts around the area, where this operation is repeated. I am only focusing here on one "pyramiding" of money, but in reality there are many pyramids.)

This means that where you actually did have \$1 million in the bank at one time, now you truly only have \$100,000 in the "vault" (\$100,000 reserve). On the books you have plenty to cover yourself, but in practice you just spent \$900,000, and still owe \$900,000. Nonetheless, the balances reads \$1.9 million in assets<sup>4</sup>, less \$1.8 million in liabilities. You're up the initial capitalization.

To be clear, in making this loan the bank engaged in what amounts to legal counterfeiting. \$900,000 was created. This is the third form of money creation/inflation. This could perhaps be called phantom money, since the same money is being used in two places.

Think of it this way: imagine 100 gold coins laying in a vault somewhere. 10 were put there by the bank itself, and the rest were deposited for safe-keeping by members of the public. The bank takes 90 of the physical gold coins, and gives them to a mortgagee, who then gives them to the person selling the home. The money is gone. It has been spent.

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<sup>3</sup> note that with actual deposits that small they need reserve nothing legally; I am pretending they are large here.

<sup>4</sup> I don't know the accounting details with respect to how the interest is handled, so I am simply dealing with the principle itself, and not the added money which will accrue in the long term. A \$1 million loan will generate \$718,695.08 in interest payments over 30 years at 4%.

And to the point, money was circulated that should not have been circulated. It should have been in the vault. That's where it was put. The people saving it obviously did not intend to spend it immediately, by definition. Thus what has in effect happened is a parallel money supply has been created. If inflation is dollars competing with dollars, then the loan caused a competition that otherwise could not have happened. In fact, the more people save, the less things cost.

Let's say our bankers then flip the loan to Fannie Mae or a New York investment banking firm. We'll deal with their side of it shortly, but for now assume Main Street gets a check for \$1.4 million (at 6% interest the principle would pay more than double over thirty years; this number may or may not reflect actual rates of return). They have made \$500,000 for a month's rent of someone else's money.

Note that these are not hard numbers; it is the principle of the thing I'm trying to show. It might be \$100,000, and it might be \$1 million. Fannie Mae never really needed to turn a profit, so it's hard to say what they were paying for what. Based on the inflation they enabled in California, Vegas and other places, it was likely quite a bit, though.

Our bankers have done good. They started with \$1 million, and now have a cool 50% return in a short period of time. They can now loan Mike Jones \$1.35 million (90% of \$1.5 million) for his dream home, and repeat the process again.

What are the potential pitfalls to this bank? They are twofold: first, the borrower could default, so they lose that money, less what they can actually sell the house on the open market for; secondly, they owed \$800,000 more to their depositors while the loan was outstanding than they actually had.

The first risk is managed by careful lending practices or by selling the loan. Most readers will have been through a credit evaluation. Banks that keep loans (and which are ethical) do a good job on this.

Banks that intend to sell loans only do a good enough job to satisfy the would-be buyer. If that buyer was Fannie Mae or Freddie Mac (or many investment banks), there were almost no strings attached, which meant they could loan to almost anyone at no real risk to themselves.

Understandably, this was the policy most banks pursued. Such thinking is short term and unethical, but as we have seen also highly profitable.

In the first case, a default, let's go through the math. John Smith loses his job, and gets a divorce, and stops making payments on his home: what happens? The way this works is the loan is deducted as an asset—presumably when the foreclosure is filed, but it may be legally before or after that--but retained as a debt, since that money was spent.

Thus the \$1.9 million in paper assets drops to \$1 million (\$1.9 million less \$900,000). \$1.8 million (\$900,000 in checks written and cashed, plus what they owe depositors) in debts are, however, retained. The bank owes out \$900,000 more than it has. It now actually owes the money it created, and there is no one to give it to them. By law, this condition cannot long endure. At some point regulators will force them to close their doors. They do acquire the rights to the house through the

process of foreclosure, but such homes are typically sold at steep discounts, and often only after the bank doors have been closed as part of a general liquidation.

The second way they can get in trouble is if they have sudden, large scale bank withdrawals. Remember, they “borrowed” other peoples money to do this deal. Obviously, the more private capital that goes into the bank—the more investors they have--the safer they are.<sup>5</sup>

As it happens, Smallville, USA is a tight knit community, so when it comes out that the bank president was having an affair with the minister’s wife many people take their money out. Remember that although they had \$1.9 million in paper assets, the number of figurative dollar bills they had in the vault was only \$100,000. Yet, they owe people \$900,000.. If depositors try to take out \$100,001, they will have to call the FDIC and will go into receivership, which means the FDIC is in control of the bank. Depending on the exact financial situation, they will either be shut down, or absorbed by a larger bank (with or without a name change) which has the money to bail them out in exchange for their base of customers and loans.

There is an intermediate position, too, where short term withdrawals create a cash crunch. Let’s say that the local ball team goes to the National Championship, and everybody decides to pull their money out, and travel with them. This is a short term liquidity problem, for which the Fed is the solution. They have to pay out \$300,000 in deposits, which makes them \$200,000 short.

Main Street Bank has two options: the Discount Window, or the use of Federal Funds. In the first case, they can simply borrow money from the Fed, at interest, to cover their shortfall. The loans are normally overnight, so they can balance their books when all the transactions post at midnight. In my example, they borrow the \$200,000 overnight at whatever the primary rate is . This keeps them from having to close their doors.

The second option is the use of other banks money. We have been speaking of reserves. In the example I’m using, the actual reserves of the bank are \$100,000. As mentioned, by law some percentage of that has to be in the vault in the form of cash, and whatever is left is deposited with the Federal Reserve, which in this sense and this sense only can be viewed as an actual financial reserve. All member banks in the system have to do this.

In this example, let us say that whereas Main Street has short term cash flow problems, some bank somewhere else in the system has more money than it is required to keep. That bank can then loan the money to Main Street on a short term basis, normally overnight. This transaction is handled by the Fed. The interest rate charged is called the “Federal Fund rate”.<sup>6</sup> This rate is influenced by the

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<sup>5</sup> In this case \$100,000 may be a bit on the skinny side, but likely not too far off. Actual capitalization requirements are a matter for public policy, and subject to frequent change, and I’m just trying to show the operation of these things with as much simplicity as is possible for a complex topic.

<sup>6</sup> <http://www.federalreserve.gov/generalinfo/faq/faqmpo.htm#3>

Feds monetary tools (reserve requirements, open market operations, and Discount window pricing), but not directly determined.

What the Fed does is “target” (their word) a rate they feel is consistent with liquidity, long term growth, and the containment of inflation. This is what the brochure says, and it is not false advertising. The system is corrupt, but in its current form, some sort of monetary policy is indeed helpful. It is not overstating the case to say that the Fed exists to solve problems it creates.

Currently that rate is 0-.25%. It is a range, obviously, since they don’t directly dictate it. Practically, what happens is they will from time to time announce a change in their target—what they will orient their monetary policy around achieving in the Federal Funds Rate—and financial publications will announce a change in the Prime Rate, which seems to be a Wall Street Journal trademark. Effectively, the Prime Rate is a function of the targeted Federal Funds rate—it is set 3% higher--and used by banks to adjust variable interest rate loans. It’s something close to their cost of money, although of course the system is complex.

As a general rule, one could view the entirety of Federal Reserve policy as oriented around a specified amount of liquidity in the system, which they measure using the Federal Funds rate, since that rate is set by the “market” of banks. Given the nature of fractional reserve banking, this is not unsound practice. That is an important caveat, however.

With respect to the use of Federal Funds, since the money used for these loans actually existed somewhere prior to being loaned, it is less inflationary than the use of the Discount Window. It is also more profitable for the really big, really well capitalized banks who make up the Federal Reserve.

Speaking of the big Wall Street Banks, they are the ones who benefit, primarily, from Open Market Operations. The Fed can buy stocks in such banks, or purchase bonds, which those banks can then invest, and earn profit on. Effectively, the Fed capitalizes them with money we pay for through inflation. As we will see, they put \$30 billion into JP Morgan Chase so they could buy a competitor. This sort of thing indirectly affects thousands of banks downstream through the “multiplier”/multi-pyramid effect, but is not a resource that is available for local, little banks. They fare better than the end consumers, but still lose a bit of their own wealth as the money travels trickles through the system. That \$30 billion, though, can become something like \$300 billion once it runs through the system, and they play a role in that.

This is how our system works. Quite obviously, banks that are less adventurous with other peoples money will over time have fewer problems. What this would involve is voluntarily keeping higher amounts of reserves than required by law, making better loans, and having more capital (money that didn’t come from depositors) in the first place. At the same time, the more risk you take, the more you can make, if you don’t go broke in the process and pass the cost on to taxpayers through direct levies, or inflation.