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Central Banks: Maestro Puppeteers or Kids in the Audience?

The Great Depression following the Wall Street crash of 1929 has been widely blamed on the flawed policy response of the US Federal Reserve. Most famously, the doyen of monetary economics, Milton Friedman, argued that the collapse of the US Money Supply by a third between 1929 and 1933 turned a brutal day on the stock market into a multi-year depression. In Friedman's view, the failure of the Federal Reserve to maintain the Money Supply caused the vicious cycle of collapsing banks, activity and hope:

"The Federal Reserve System could have prevented the decline (in the Money Supply) at all times. The terrible depression which followed the crash was a direct result of bungling by the Federal Reserve System."

This view was powerfully endorsed by current Fed Chairman Ben Bernanke in his remarks at Friedman's 90th birthday celebration in 2002: *"Let me end my talk by abusing slightly my status as an official representative of the Federal Reserve. I would like to say to Milton and Anna: Regarding the Great Depression. You're right, we did it. We're very sorry. But thanks to you, we won't do it again."*

Central to the views of Friedman, Bernanke and many others is the assumed ability of the Federal Reserve to determine the Money Supply. In simple terms, as the controller of the dollar printing press the Federal Reserve is assumed to control the quantity of money in the economy i.e. the Money Supply. In practice, the mechanism by which the Fed is assumed to exercise this control is familiar to all who have had the dubious pleasure of sitting through an economics class on the 'money multiplier':

Assume that the reserve ratio set by the Fed for the banking system is 10% and assume that the Fed wants to increase the Money Supply by \$1,000. They effectively print \$100 of notes/'reserves' and use them to buy \$100 of US Treasury Bonds on the open market. The seller of the bonds deposits her \$100 proceeds at her bank, which puts \$10 aside as a reserve and loans out \$90 to a customer looking to pay his gas bill. The gas company deposits their \$90 proceeds at their bank, which puts \$9 aside as a reserve and loans out \$81 to a customer looking to go to the opera. The opera company deposits their \$81 proceeds at their bank and the process continues until a total of \$1,000 in 'new money' has been 'created' i.e. the policy objective of the Fed to increase the Money Supply by \$1,000 has been achieved.

Crucial to this story is not the oft-commented wonder of the multiplier, but the direction of causation i.e. the Fed determines the Money Supply and we can all rest assured that having learned the lessons of the 1930s, that they have the necessary wisdom and policy levers to avoid a repeat.



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Unfortunately, there is an alternative view of how the Money Supply is determined which is so at odds with that of Friedman and Bernanke, that it brings to mind the story of Irish writer Samuel Beckett when asked by a French journalist: *"Vous êtes Anglais, Monsieur Beckett?"*, to which Beckett replied: *"Au contraire"*. In fact, this alternative view of Money Supply determination runs in completely the reverse direction and was summarized well by the Senior Vice President of the New York Fed, Alan Holmes, in 1969:

"In the real world, banks extend credit, creating deposits in the process, and look for reserves later."

While this view has many implications, its relevance here is that the Fed does not determine the Money Supply. In practice, while they can certainly print dollars / 'reserves' to buy US Treasury Bonds, they have no way of ensuring that this will cause lending into the economy by the banking system.

In Banks we (lack) Trust

The collapse of Lehman Brothers in September 2008 froze the global credit system and threatened to plunge the global economy into a depression. As trust between banks, as well as between banks and their customers, was shaken violently, global trade and activity collapsed in a frightening downward spiral. Many feared that a depression of 1930s dimensions was underway.

The dramatic response of the Fed under Bernanke, no doubt driven by the lessons that he and Friedman had drawn from the Great Depression, has seen the Fed effectively print an unprecedented amount of dollars / 'reserves' to buy an unprecedented amount of US Treasury (and other) Bonds. Under the strange moniker of 'quantitative easing', this response has either been widely praised for having averted a depression, or widely criticised for being an inevitable precursor to runaway inflation.

The alternative view is that the Fed is no maestro puppeteer. Stemming from the views of Holmes and others, the Fed's power in determining the Money Supply appears to be far less than conventional wisdom gives them credit. By facilitating the banking system to the degree that it has since the financial crisis begun in earnest in 2008, the Fed likely averted a sharp contraction in the Money Supply. That Money Supply has remained relatively stable over the period is certainly to their credit. However if the demand for money / credit remains moribund, its price (i.e. the interest rate) will remain low. He with a bag of supply tools may be powerless to reverse its decline.

If such a statement sounds too great a departure from the conventional view of the pivotal role of central bank power, the following argument supports the same low rate / yield conclusion from a more conventional perspective. Viewing the ongoing economic malaise as fundamentally a crisis in the modern banking system, the over-riding fear of provoking the 'money destroying monster' will likely lead central bankers to keep rates and yields (and therefore the appropriate discount rate) anchored.

'Money Destroying Monster'

Whatever your view of the why and the how of the collapse of Lehman Brothers almost three years ago, its demise (and the fear that others like it will follow suit) continues to impact trust in the global banking system. Fixing this trust will likely dominate central bank thinking for the foreseeable future. To understand why this is the case, consider a simple example of how a modern bank creates money by granting a loan:

1. A bank grants a loan of Euro 10,000 to a customer to buy a car. The bank credits the current account of the customer, who writes a cheque for Euro 10,000 to the seller of the car.
2. The seller of the car deposits the cheque to her bank account. If this is the same bank as that of the car-buyer, this bank now has an asset in the form of the loan to the car-buyer, funded by a liability in the form of the deposit from the car-seller. Alternatively, if the car-seller deposits the cheque at a different bank, the bank of the car-buyer will borrow Euro 10,000 via the inter-bank market to transfer to the bank of the car-seller and, while having the same 'asset' as before, it is now funded in the form of this inter-bank loan.

The net effect of this process is that Euro 10,000 has been created from nothing and is now circulating in the economy. The bank that granted the loan is profiting from charging a higher interest rate to its car-buying customer than it pays to either the car-selling depositor or, in the alternative case, to the inter-bank lender. This profit potential incentivises the bank to repeat the process as often and to the largest extent possible.

The regulatory constraint on this is theoretically two-fold:

1. The bank must fulfil a 'reserve ratio' i.e. it must hold a certain percentage of its liabilities in reserve at the central bank. While in theory this enables the central bank to control the quantum of loans granted by the bank, in practice the central bank must acquiesce to the lending decisions of the bank by ensuring that sufficient reserves are always available for the bank to meet its reserve ratio. In effect, there is no reserve constraint on the bank loaning and thereby creating as much money as it chooses. This reality was summarized well by Canadian economist Basil J. Moore in 1983: *"Once deposits have been created by an act of lending, the central bank must ensure that the required reserves are available. Otherwise the banks, no matter how hard they scramble for funds, could not in aggregate meet their reserve requirements."*
2. The bank must also fulfil a 'capital ratio' i.e. it must hold a certain percentage of capital, such as equity provided by its shareholders, to its assets such as loans. While again in theory this enables the central bank to control the quantum of loans granted by the bank, in practice, a bank determined to grant more loans is free to both increase its capital via retained profits and / or raise fresh capital without any interference from the central bank. In effect, there is little 'capital' constraint on the bank loaning and thereby creating as much money as it chooses.

Now consider the impact of any doubt emerging about the ability or willingness of the car-buying borrower to repay his loan. Concerned about the security of their money, the car-selling depositor, or in the alternative case the inter-bank lender, are likely to seek immediate repayment from the car-buyers bank. Unable to seek immediate repayment from the car-buying borrower, or to source funding elsewhere as doubt about its loan-book spreads, the bank is forced to source the funds it needs from the central bank.

This is the predicament of many banks across the Euro-zone periphery. Widely-voiced doubts about the ability or willingness of their borrowing customers (individuals or governments) to repay their loans has sparked a flight of deposits and a recalling of inter-bank loans, leaving these banks hugely reliant on funding provided by the ECB.

More recently, the possibility that doubt about Euro-zone banks may impact elsewhere has begun to emerge. Many of the larger Euro-zone banks, for example, have substantial operations in the United States, and rumours that they are having difficulty continuing to access the required dollar funding have grown louder. In particular, it has been widely reported that a major Euro-zone bank was unable to access a required \$500m in funding earlier this year and was forced to turn to the ECB. If true, this in turn would have forced the ECB to turn to the Fed to source the required dollars.

It is via such a process that the paralyzing infection of doubt, so apparent in many Euro-zone banks, could mutate into a disease that attacks the global banking system. The likely consequences of this are unknowable, as the Nixon-ignited 'money creation' engine of modern banking is potentially shunted into reverse to become a 'money destroying' monster. This potential nightmare on main-street likely unites Bernanke, Draghi and King in sleeplessness. Low interest rates for a long time may be unavoidable.

Of course, this is but one scenario. An alternative one is that confidence in the banking system returns, demand for credit resumes with abandon and the recently printed currency unleashes an inflationary spring far worse than our wildest imaginations.

Intriguingly, highly respected value investors are on opposite sides of this debate. In the blue corner we have Prem Watsa of Fairfax, who has purchased long-term inflation linked instruments that pay off in a deflationary environment (perhaps caused by money destruction). In the red corner we have Seth Klarman of Baupost who is concerned that *"the government's fiscal and monetary experiments may go awry, resulting in runaway inflation or currency collapse"* – he's been buying gold and other inflation hedges.

The interest rate environment is an important input for investing in all asset classes. The central bank authorities would have us believe that they are in full control of interest rates. This is not necessarily the case.

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