What Is Money? Essay, Research Paper

What is ?money?? How is the supply of money affected by the aims and the

actions of the commercial banks, the central bank, and the government?s

financing of the PSBR?The Concise

Oxford Dictionary defines money as ?a current medium of exchange?. This definition,

if rather sparse, does detail the essential nature of money: it is a recognised

form of exchange for goods and services. It can take many forms: anything which

is accepted by the seller, because it has a recognised value which can be used

to purchase further goods and services, will suffice as money. Why money

exists, even in centrally planned economies, is because it is efficient. A

barter economy, in which no money was used, requires those wishing to make a

transaction to exchange goods and services. The complexities involved in such a

system are immense. For example, an apple seller, wishing to obtain a hammer,

would not only have to find a toolmaker wishing to obtain apples, but would

also need to make an agreement regarding the appropriate apples/hammer exchange

rate. The former problem is known by economists as a ?double coincidence of

wants?, whilst the latter demonstrates the hassle of having to know relative

prices, not only for apples and hammers, but also for every other good or

service in the market. If, however, one good becomes the numeraire good, and

the value of every other good or service was measured in relation to it,

transactions will be made much more easily. This numeraire good would become

the money of the economy. To be effective,

money will have to fulfil some or, preferably, all of the following. It must be

accepted as a unit of account and a means of exchange or payment, be durable,

scarce, easily dividable, and stable in value. In modern

societies, coins and notes (token money) are obvious forms of money, but money,

and the money supply, takes on more forms than just these. Hard currency,

such as notes and coins, are considered the most liquid monetary asset there

is, as it can quickly be turned into money. Its liquidity is very convenient,

but it does not hold its value as well as other assets, as not only does it not

earn interest, but also its real value will drop during periods of inflation.

?1 is still ?1 after a period of time, but due to inflation its purchasing power

will be less. Less liquid assets earn interest and thus are not as affected as

money is by inflation, although they are harder to convert to money. It can be

argued that sight deposits, which are instant access chequing accounts, are

only slightly less liquid than money, as cheques are accepted as a form of

payment. Wealth need not

be only stored in money, but in other, less liquid assets. The amount of money

in an economy is a necessary tool for fiscal policy, and thus it is necessary

to know how it can be calculated. The supply of

money is the stock of liquid assets in an economy which can be exchanged for

goods or services. It is not simply the number of notes, coins, and deposits of

banks held at the central bank). This has a number of names: it may be called

the monetary base, high-powered money, M0, or narrow money. This definition

of the money supply is rather limited, being not much more than a mere

description of how much token money is in circulation and how much is lodged at

the central bank. Although other,

wider definitions are used, known as broad money, the most common one is M4.

This covers all that M0 does, but also non-interest-bearing bank deposits,

other bank retail deposits, retail shares and deposits at building societies,

and wholesale deposits (including certificates of deposits) at banks and

building societies. It has been argued that the simple summing of M4 to

estimate the money supply takes account neither of the liquidity of the various

assets nor of their differing abilities to earn interest. M4, it is said,

erroneously presumes they are perfect substitutes. The Divisia Index avoids

these problems by weighting each component of m4 according to their role in

transactions. This, though, will not affect the theory discussed below. M4 is therefore

far larger than M0, and this is mainly due to the actions of banks. If banks

merely stored all that was deposited in them, the money supply would not be

increased. However, banks realise that not all that is deposited in them will

be withdrawn at the same time. Thus, they contribute to the money supply by

loaning money. This can be explained by the use of an example: ?100 is

deposited in a bank, which has estimated that only 10% of deposits need to be

kept (this is its reserve ratio). It now has liabilities of ?100, and assets of

?100. In order to keep to its 10% ratio, it loans ?90 to another customer,

keeping ?10 in reserves. The money supply has increased by ?90 ? the original

depositor still has a deposit of ?100, but the borrower now has ?90. This ?90

will then also be deposited, either in the original bank or another one. The

process will then continue again: the bank will hold 10% and loan the rest.

With each deposit and loan, more money is created and enters the money supply,

albeit not infinitely. The formula that calculates the total money created by

an initial deposit is: (1/rr)\*D, where

rr is the reserve ratio and D is the initial deposit. In this example, with

rr=0.1 and D=100, an extra ?1000 can be created. The banks have an incentive to

do this because they can charge interest on the loans. The real figure

of rr used to be controlled by the government, but nowadays it has been

deregulated and can be as low as 0.02! This process is called

fractional-reserve banking. There is a risk of a run on the bank occurring,

where too many people try and withdraw funds, thus the bank cannot pay them,

although these are rare in times of stability. Moreover, many central banks are

able to bail out banks in such circumstances.?

The money supply

is thus larger than the monetary base. So long as the money is deposited into

the banking system, it does not matter which bank it is deposited in- the

principle remains the same. This process is known as the money supply

multiplier, which tells how much the money supply will rise if the monetary

base is expanded. The value of the money supply multiplier is going to be

determined by the depositing decisions made by the holds of currency, and the

reserve ratio the banks which to have. It is determined as the ration of cash

to total deposits and the banks? desired ratio of reserves to total deposits.

To calculate its level, the formula below is used. Here, C is the amount of

currency, D is the number of total deposits, and R is the desired level of

reserves. The multiplier will therefore be: (C+D)/(C+R) As C+D equals

the money supply (M) and C+R equals the monetary base (B), the level of the

multiplier will be the money supply divided by the monetary base. With this

figure, the formula can be rearranged so the amount the money supply is

increased by this process is shown. It is M=mB. A criticism of

the money supply multiplier is that people?s desire to deposit is not very

stable, although it has been suggested that changes in interest rates may

affect the volume of withdrawals and deposits. The supply of

money may also be affected by the central bank, which in the UK is the Bank of

England. Firstly, the central bank could do this by setting a required reserve

ratio, which would restrict the ability of the commercial banks to increase the

money supply by loaning out money, as the money suppler multiplier would be

reduced. If this requirement were above the ratio the commercial banks would

have wished to have, then the banks will have to create fewer deposits and make

fewer loans then they could otherwise have profitably done. If the central bank

imposed this requirement in order to reduce the money supply, the commercial

banks will probably be unable to borrow from the central bank in order to

increase their cash reserves if they wished to make further loans. They might

try to attract further deposits from customers by increasing their interest

rates, but the central bank may retaliate by increasing the required reserve

ratio. A similar way

the central bank can affect the supply of money is through special deposits.

These are deposits at the central bank which the banking sector is required to

lodge. These are then frozen, thus preventing the sector from accessing them,

although interest is paid at the average treasury bill rate.? Making these special deposits reduces the

level of the commercial banks? operational deposits, which forces them to cut

back on lending. In the UK, special deposits have not been used since the

1970s. The supply of

money can also be controlled by the central bank by adjusting its interest rate

which it charges when the commercial banks wish to borrow money (the discount

rate). Banks usually have a ratio of cash to deposits which they consider to be

the minimum safe level. If demand for cash is such that their reserves fall

below this level, they will able to borrow money from the central bank at its

discount rate. If market rates were 8%, and the discount rate were also 8%,

then the banks could reduce their cash reserves to their minimum ratio, knowing

that if demand exceeds supply they will be able to borrow at 8%. The central

bank, though, may raise its discount rate to a value above the market level, in

order to encourage banks not to reduce their cash reserves to the minimum

through excess loans. By raising the discount value to such a level, the

commercial banks are given an incentive to hold more reserves, thus reducing

the money multiplier and the money supply. Another way the

money supply can be affected by the central bank is through its manipulation of

the interest rate. This is akin to the discount rate mentioned above. By

raising or lowering interest rates, the demand for money is respectively

reduced or increased. If it sets them at a certain level, it can clear the

market at level by supplying enough money to match the demand. Alternatively,

it could fix the money supply at a certain rate and let the market clear the

interest rates at the equilibrium. Trying to fix the money supply is not as

easy as this essay has suggested, so central banks usually set the interest

rate and provide the amount of money the market demands. The central bank

may also affect the money supply through operating on the open market. This

allows it to manipulate the money supply through the monetary base. It may choose

to either buy or sell securities in the marketplace, which will either inject

or remove money respectively. Thus, the monetary base will be affected, causing

the money supply to alter. To illustrate this, suppose the central bank sold

gilts worth ?10 million. ?10 million would flow from the deposits of the

purchasers to the central bank, taking the ?10 million out of the monetary

base. To inject money into the economy, the central bank would have to buy the

gilts. The financing of

the public sector borrowing requirement (henceforth, the PSBR), may also affect

the supply of money. The total PSBR can only be met through the sale of debt,

foreign currency reserves, or by increasing the monetary base. Selling

government debt can be done in one of two ways, by selling the debt to the

central bank, or by selling it to the non-bank private sector. The former would

cause the government?s account with the central bank to be credited with an

amount equal to the value of the debt sold. Unfortunately, the spending of

these deposits would flow into the banking system, causing the monetary base to

rise, increasing the money supply. It has been said that this is the modern-day

version of printing money, which also carries this risk, and this is probably a

correct assumption. The latter

method causes the banks? operational deposits at the central bank to fall, thus

reducing the monetary base and the money supply. This only works if companies

in this sector, which includes insurance group, pension funds, and joint stock

companies, can be persuaded to purchase the debt, which depends on the

government?s willingness to accept increasing rates of interest. Its impact on

the monetary base is therefore less than what the model suggests, as interest

rates are now commonly used to reduce inflation. If commercial

banks purchase debt, their operational deposits will obviously be reduced, but

will soon recover once the government spends the money. Thus, the money supply

would be unaffected. If the foreign

exchange markets are intervened with by the government to adjust the exchange

rate, there may be an effect on the monetary base and the supply of money. When

the currency is falling, foreign currencies must be sold and the currency must

be bought to stabilise its price. The use of deposits of the national currency

to do this suggest that the operational deposits of the banking sector must be

reduced, causing the monetary base to fall, affecting the supply of money.

Conversely, by selling the national currency to reduce its rate, the monetary

base will rise. Securities may be sold on the open market in an attempt to

dampen the effects of inflows of the national currency, but this would imply an

increase in interest rates and cause the currency to rise further still. A number of

institutions can affect the supply of money, but the greatest impact on the

money supply is had by the commercial banks and the central bank. The efforts

of the government to finance the PSBR may, though, also affect it.