CBS

How is money made?

Money creation

In the modern economy, most money takes the form of bank deposits. Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower's bank account, thereby creating new money.

Although commercial banks create money through lending, they cannot do so freely without limit.

In the modern economy there are three main sets of limitations that restrict the amount of money that banks can create:

1. Banks themselves face limits on how much they can lend. In particular:
   a. Market forces limit lending because individual banks have to be able to lend profitably in a competitive market.
   b. Lending is also constrained because banks have to take steps to lessen the risks associated with making additional loans.
   c. Regulatory policy acts as a limit on banks' activities in order to lessen a build-up of risks that could pose a threat to the stability of the financial system.

2. Money creation is also controlled by the behaviour of the money holders – households and businesses. Households and companies who receive the newly created money might respond by carrying out transactions that immediately destroy it, for example by repaying outstanding loans.

3. The ultimate limit on money creation is monetary policy. By influencing the level of interest rates in the economy, the Central Bank of Samoa's monetary policy affects how much households and companies want to borrow. This occurs both directly, through influencing the loan rates charged by banks, but also indirectly through the overall effect of monetary policy on economic activity. As a result, the Central Bank of Samoa is able to ensure that money growth is consistent with its objective of low and stable inflation.

Bank lending limits

Banks receive interest payments on their assets, such as loans, but they also generally have to pay interest on their liabilities, such as savings accounts.

A bank's business model relies on receiving a higher interest rate on the loans (or other assets) than the rate it pays out on its deposits (or other liabilities). The commercial bank uses the difference between the two, or the "spread", to cover its operating costs and to make a profit.

By attracting new deposits, the bank can increase its lending without running down its reserves. But it must balance the interest it is paying out on deposits with the interest it is receiving on loans.

This means that competition for loans and deposits, and the desire to make a profit, therefore limit money creation by banks.

Managing risks

Banks also need to manage the liquidity[1] risks associated with making new loans. For example the risk that people will want to withdraw their deposits in large sums and the bank will need to have that currency on call.

One way the banks do this is by making sure that they attract relatively stable deposits to match their new loans. That is, deposits that are unlikely or unable to be withdrawn in large amounts, such as term deposits.

Consumers are likely to require compensation for the inconvenience of holding longer-term deposits. So these are likely to be more costly for the banks, limiting the amount of lending they wish to do.

An individual bank's lending is also limited by considerations of credit risk. This is the risk to the bank of lending to borrowers who turn out to be unable to repay their loans.

In part, banks can guard against credit risk by having sufficient capital to absorb any unexpected losses on their loans. But since loans will always involve some risk, the cost of these potential losses will be taken into account when the bank process loans.

However market forces do not always

[1] Liquidity - A measure of the extent to which a debtor has the cash to meet short-term debts.

lead individual banks to sufficiently protect themselves against liquidity and credit risks. Because of this, prudential regulation (carried out by CBS) aims to ensure that banks do not take excessive risks when making new loans, including via requirements for banks' capital and liquidity positions. These include rules set out under the Financial Institutions Act 1996.

Consumer constraints

When new money is created, households or companies either pass it on through spending, or destroy it by paying off debts.

Each scenario has a very different implication for economic activity.

If the new money is spent then it may continue to be passed between different households and companies, each of whom may, in turn, increase their spending. This process can lead to increased inflationary[2] pressure on the economy.

In contrast, if the money is quickly destroyed (by paying back a debt) there need be no further effects on the economy.

Monetary policy

One of the Central Bank's primary objectives is to ensure monetary stability by keeping consumer price inflation on track to meet the three percent target set by the Government.

Setting monetary policy appropriately ensures a stable rate of credit and money creation to meets this target.

The Central Bank of Samoa implements monetary policy by setting short-term interest rates, specifically by setting the interest rate paid on central bank reserves held by the commercial banks.

It is because there is demand for central bank money – the ultimate means of settlement for banks – that the price of reserves has a meaningful impact on other interest rates in the economy.

The interest rate that commercial banks can obtain on money placed at the central bank influences the rate at which they are willing to lend on similar terms to their customers.

[3] Inflation - A sustained increase in the general level of prices for goods and services. For more on this topic see the CBS Factsheet "Inflation".

Changes in inter-bank interest rates then feed through to a wider range of interest rates in different markets and at different maturities, including the interest rates that banks charge borrowers for loans and offer savers for deposits. This then influences how much money is created.

However once short-term interest rates reach their effective lower bound, it is not possible for the central bank to provide further stimulus to the economy by lowering the rate at which reserves are remunerated.

One possible way of providing further monetary stimulus to the economy is through a programme of asset purchases known as “quantative easing” (QE).

The policy aims to buy assets, government bonds, mainly from non-bank financial companies, such as pension funds or insurance companies.

Consider, for example, the purchase of $1 million of government bonds from a pension fund. The pension fund’s bank credits the pension fund’s account with $1 million of deposits in exchange for the government bonds. The Central Bank finances its purchase by crediting reserves to the pension fund’s bank. The commercial bank’s balance sheet expands: new deposit liabilities are matched with an asset in the form of new reserves.
QE works by circumventing the banking sector, aiming to increase private spending directly.

Conclusion

Most of the money in circulation is created, not by the printing of banknotes by the Central Bank of Samoa, but by the commercial banks themselves.

The Central Bank is nevertheless still able to influence the amount of money in the economy.

It does so in normal times by setting monetary policy – through the interest rate that it pays on reserves held by commercial banks with the Central Bank of Samoa.

But when interest rates reach their effective lower bound, the Central Bank can use an asset purchase programme to raise the amount of money in public circulation. This in turn affects the prices and quantities of a range of assets in the economy, including money.