

# Money Creation and Money Multiplier

The following Excel-spreadsheet enables you to calculate the change in money because of a change in the monetary base (base money). This additional supply in money is due to the credit activity of the banks.

The following points are **assumed**:

- The cash-to-money ratio  $c$  (the public's desired cash as proportion to total money) is constant during the whole process of money creation.
- The reserve ratio of the banks  $r$  (the banks' desired reserves as proportion to total deposits) is constant, too.
- The cumulative process of money creation goes on until infinity.

You can **enter** the following **variables** into the spreadsheet:

H5 Change in the monetary base (for example 1000)

H6 Cash-to-money ratio  $c$  (for example 0.2 in the case of 20 %)

H7 Reserve ratio of the banks  $r$  (for example 0.1 in the case of 10 %)

The spreadsheet is **calculating automatically** the following items:

- the balance sheets of the first three banks. The balance sheet is simplified insofar as it only displays accounts which are important for the money creation.
- the change in money supply (cash and deposits) during and after the cumulative process of money creation by the banks;
- the money multiplier:  $\frac{1}{1-(1-c)(1-r)}$

[Link to the money creation spreadsheet \(moneycre.xls\) \(click here!\)](#)