

GELaBS 5

Q1

Answer

# How Bank Money is created:

In an economy, there are Chantal, a doctor, and Gérôme, an entrepreneur with some health issues. Chantal has a deposit account at the Mickey Mouse Bank and Gérôme at the Donald Duck Bank. As in the example seen in Presentation #5 ( i.e. Unit 10 of the textbook), show what happens to the balance sheets of the two banks if the following transactions occur in this order

# How Bank Money is created: An example

1. Chantal deposits \$200 in Mickey Mouse Bank

Mickey Mouse's assets	Mickey Mouse's liabilities
\$200 base money	\$200 payable on demand to Chantal

# How Bank Money is created: An example

## 1. Chantal deposits \$200 in Mickey Mouse Bank

Mickey Mouse Bank's assets	Mickey Mouse Bank's liabilities
\$200 base money	\$200 payable on demand to Chantal

This money can be kept by the bank in its vault (vault cash) or lent to someone else

This money can be withdrawn by Chantal in any moment (or simply used by him as a medium of exchange)

# How Bank Money is created: An example

2. Gérôme deposits \$150 in Donald Duck Bank

Donald Duck Bank's assets	Donald Duck Bank's liabilities
\$150 base money	\$150 payable on demand to Gérôme

# How Bank Money is created: An example

3. Gérôme pays Chantal \$100 for some medical services. Chantal deposits the sum in her account.

Mickey Mouse Bank's assets	Mickey Mouse Bank's liabilities
$\$200 + \$100 = \$300$ base money	$\$200 + \$100 = \$300$ payable on demand to Chantal

Donald Duck Bank's assets	Donald Duck Bank's liabilities
$\$150 - \$100 = \$50$ base money	$\$150 - \$100 = \$50$ payable on demand to Gérôme

# How Bank Money is created: An example

4. The Donald Duck Bank gives Gérôme a loan of \$1000 to expand his business

Donald Duck Bank's assets	Donald Duck Bank's liabilities
\$50 base money \$1000 loan	$\$50 + \$1000 = \$1050$ payable on demand to Gérôme

# How Bank Money is created: An example

5. G r me pays Chantal \$120 for some medical services. Chantal deposits the sum in her account. However, the Donald Duck Bank does not have sufficient base money, it needs to borrow this sum (of part of it) from other banks or from the Central Bank. We assume that the sum it is borrowed from the Mickey Mouse Bank.

Therefore, an instant before the payment to Chantal is made, we have

Mickey Mouse Bank's assets	Mickey Mouse Bank's liabilities
$\$300 - \$120 = \$180$ base money $\$120$ loan to Donald Duck Bank	$\$300$ payable on demand to Chantal

Donald Duck Bank's assets	Donald Duck Bank's liabilities
$\$50 + \$120 = \$170$ base money \$1000 loan	\$1050 payable on demand to G�r�me \$120 borrowing from Mickey Mouse Bank



# How Bank Money is created: An example

5. G r me pays Chantal \$120 for some medical services. Chantal deposits the sum in her account. However, the Donald Duck Bank does not have sufficient base money, it needs to borrow this sum (of part of it) from other banks or from the Central Bank. We assume that the sum it is borrowed from the Mickey Mouse Bank

After the payment to Chantal is made, we have

Mickey Mouse Bank's assets	Mickey Mouse Bank's liabilities
$\$180 + \$120 = \$300$ base money  $\$120$ loans to Donald Duck Bank	$\$300 + \$120 = \$420$ payable on demand to Chantal

Donald Duck Bank's assets	Donald Duck Bank's liabilities
$\$170 - \$120 = \$50$ base \$1000 loan	$\$1050 - \$120 = \$930$ payable on demand to G�r�me $\$120$ borrowing from other banks

This sum is not payable on demand

# How Bank Money is created: An example

What is the amount of base money, bank money and broad money after these transactions?

The total money in the banking system has grown!

Assets of Mickey Mouse Bank and Donald Duck Bank (excluding interbank loans)	Liabilities of Mickey Mouse Bank and Donald Duck Bank (excluding interbank borrowing)
\$350 base money \$1000 bank loan made to G�r�me <b>Total: \$1350</b>	\$1350 payable on demand

$$\text{Broad money} = \text{base money} + \text{bank money} = \$350 + \$1000$$

# How Bank Money is created: An example

Where, in this example, can you spot a potential principal-agent problem?

- Yes, between Gérôme and the Donald Duck Bank. The customer may have omitted some information regarding his project and his abilities to carry it on (recall that he has some health issues).