

New A Level
Economics

Financial Markets



Teacher Instructions

This activity and worksheet is designed to allow students to explore types of money and credit and to think about why interest rates differ. The activity covers credit creation in theory, allowing students to calculate and observe the growth in the money supply, then to consider how controlling the reserve ratio may be a tool to help control its growth.

The Goldsmith's Tale is a handy YouTube video, and can be found here:
www.youtube.com/watch?v=3HdmA3vPbSU.

It is useful to demonstrate the history of how paper money, and then electronic money, came into existence. The resource then requests students to ponder the validity of credit creation theory. A case study on Northern Rock is included as well as further consideration of international reserve ratios for comparison.





CREDIT CHECK

There are a variety of ways to pay for goods and services within an economy.



Notes and coins.



A cheque is an order to the bank to pay a stated sum to another account, on particular printed form.



A credit card that can only be used in one store or chain of stores. When buying goods or services, you can delay paying, but you are charged interest on outstanding balances.



A card used to transfer money electronically when making a purchase. No interest is paid on the transaction.



A card that allows purchases to be made on credit. The credit card company 'buys' the good or service on your behalf, and you then owe the money to the credit card company. Interest is payable if the full outstanding sum is not paid.



A mortgage is a long term loan for buying property. The bank or building society buy the property for you, and remain its legal owner until you have paid off the mortgage. The interest rate tends to be quite low compared to other loans as the bank owns the house.

Interest Rates

An interest rate is in effect the price of money – it is the amount you have to pay in order to 'buy' the money for your needs. Interest rates vary considerably according to the type of loan, and the amount needed to borrow, and whether the loan is 'secured' on property or not. The basic rule of thumb is that the more risky the customer is perceived the higher the interest rate chargeable.



TASK 1: MATCH THE FOLLOWING EXAMPLE INTEREST RATES WITH TYPICAL LOANS OR BORROWING

Type of loan or borrowing/Savings

Mortgage
Overdraft
Credit Card
Store Card
Pay Day Loan
Instant access savings account
90 day notice savings account
Bank Loan to buy a new car

Typical interest rate

5%
3%
1250%
2%
0.5%
25%
20%
19%



CREDIT CHECK



TASK 2: DECIDE THE BEST WAY TO PAY FOR THE FOLLOWING ITEMS



Pint of Milk



Ferrari



£500 loan to a friend



A 2-bed flat



iPhone



Starbucks Coffee

Conclusion:

Your Bank Account

Think of the money in your bank account or savings account. How much do you draw out each month in cash?

Answer:

Therefore, operating as a commercial bank, what proportion of a person's bank deposit should that bank have readily available for individuals just in case they were to draw out cash?

Answer:

This is known as _____

ACTIVITY: CREDIT CREATION, VERSION 1

- a You deposit £100 at the bank. Given a reserve ratio of 10%, how much does the bank need to keep for your demand for notes and coins?
- b Mr Smith wants to borrow some money. How much can the bank lend them?
- c The bank digitally credits their account by this amount, they withdraw the money and purchase good X from Mr Brown, who now deposits the cash at the bank. How much does the bank have now?

Answer

a

b

c



CREDIT CHECK

- d How much must the bank keep in case Mr Brown wants some cash?
- e Mrs Jones wants to borrow some money from the bank. How much can the bank lend to her?
- f The bank lends the money to Mrs Jones who buys good Y from Miss Lloyd. Miss Lloyd deposits the cash at the bank. How much does the bank now have?
- g How much money must the bank keep just in case Miss Lloyd wants some cash? How much can they lend out to the next customer?

Answer

d

e

f

g

How long can this process keep going?

$$\text{Credit Creation Multiplier} = \frac{1}{\text{Reserve Ratio}}$$



TASK 3: GIVEN THE FORMULA ABOVE, AND KNOWING THE RESERVE RATIO IN OUR EXPERIMENT IS 10%, CALCULATE THE CREDIT CREATION MULTIPLIER

Answer:



TASK 4: MULTIPLY THE INITIAL BANK DEPOSIT BY THE CREDIT CREATION MULTIPLIER TO CALCULATE THE AMOUNT OF 'MONEY' NOW IN THE ECONOMY

Answer:

The Goldsmith's Tale

Watch the following video from YouTube:

www.youtube.com/watch?v=3HdmA3vPbSU

Make brief notes from the video here:





CREDIT CHECK



TASK 5: ANSWER THE FOLLOWING QUESTIONS AFTER WATCHING THE VIDEO

- a Name three things that have been used as money in the past
- b Why was 'paper money' more attractive than using gold coins?
- c How does a bank make profit?
- d What is a 'run on the bank'?

Case Study: Northern Rock

Northern Rock began as a building society in 1965, and floated on the Stock Exchange as a public limited company in the 1990s, becoming a bank. The bank grew very rapidly, and when the financial crisis hit in 2007, it was clear the bank had overstretched itself and their shares had lost 90% of their value.

Many customers tried to extract their life savings in a 'run on the bank'. It was nationalised in February 2008, when the government took ownership away from shareholders, without reimbursement. In 2010 the bank was split into two sections, assets and banking. Virgin Money bought the banking part of Northern Rock in 2012.



northern
rock





CREDIT CHECK



TASK 6: ANSWER THE FOLLOWING QUESTION WITH AS MUCH DETAIL AS POSSIBLE:

Do modern banks need to wait for the initial cash deposit before making loans to other customers, or can they just make loans by adjusting digital numbers?

Reserve Ratio and the Supply of Money

Bank reserve ratios are central bank regulations that set the minimum reserves that a commercial bank must hold as a percentage of its deposits and notes. Some governments use the 'reserve ratio' in order to control the money supply. By raising the ratio, the amount of lending by banks is restricted, and the growth of the money supply can be reduced. By lowering the ratio, banks can lend more by keeping a smaller amount in reserve, thus accelerating the growth of the money supply.

The Reserve Ratio and the UK

In Britain until 1981, the BoE specified the total amount of notes and coins a bank must have available at its branches. This meant that if at any time the BoE felt that the amount of money in circulation was too high and was causing inflation, it could force banks to reduce their lending by raising the reserve ratio. A reduction in the reserve ratio from 20:1 to 10:1 would have halved the total of the amount of money that banks could create.

That system still applies but in a less rigid form. Responding to pressure from the commercial banks (who argued that they would otherwise lose overseas business to foreign banks), the BoE abolished its minimum reserve ratio in 1981. It now agrees a reserve requirement individually with each bank, but there is no set amount required. The banks are required to keep a 'prudent' level of reserves. Clearly in the run up to the financial crisis, the banks decided their reserves need only be very small indeed, thus allowing them to keep lending more and more, right up to the global financial crisis. The reason so many banks went 'bust' is that they just did not have enough money to pay back customers when the customers demanded their deposits back.



TASK 7: MATCH THE FOLLOWING RESERVE RATIOS WITH THE COUNTRIES:

Country	Reserve Ratio
UK	2.5%
Eurozone	3%
USA	18.5%
China	0%
Switzerland	4%
Russia	1%



CREDIT CHECK ANSWERS



TASK 1: MATCH THE FOLLOWING EXAMPLE INTEREST RATES WITH TYPICAL LOANS OR BORROWING

Type of loan or borrowing/Savings

Typical interest rate



TASK 2: DECIDE THE BEST WAY TO PAY FOR THE FOLLOWING ITEMS

Pint of Milk

Ferrari

£500 loan to a friend

A 2-bed flat

iPhone

Starbucks Coffee

CASH

LOAN

CHEQUE

MORTGAGE

CREDIT CARD

CASH

Conclusion:

Cash is only used for minor purchases

Your Bank Account

Think of the money in your bank account or savings account. How much do you draw out each month in cash?

Answer: **About 10%**

Therefore, operating as a commercial bank, what proportion of a person's bank deposit should that bank have readily available for individuals just in case they were to draw out cash?

Answer: **Keep about 10%**

This is known as **The reserve ratio**



CREDIT CHECK ANSWERS

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- d How much must the bank keep in case Mr Brown wants some cash?
- e Mrs Jones wants to borrow some money from the bank. How much can the bank lend to her?
- f The bank lends the money to Mrs Jones who buys good Y from Miss Lloyd. Miss Lloyd deposits the cash at the bank. How much does the bank now have?
- g How much money must the bank keep just in case Miss Lloyd wants some customer?

10

90

190

9

81

8.10

72.90



TASK 3: GIVEN THE FORMULA ABOVE, AND KNOWING THE RESERVE RATIO IN OUR EXPERIMENT IS 10%, CALCULATE THE CREDIT CREATION MULTIPLIER

Answer: **10**



TASK 4: MULTIPLY THE INITIAL BANK DEPOSIT BY THE CREDIT CREATION MULTIPLIER TO CALCULATE THE AMOUNT OF 'MONEY' NOW IN THE ECONOMY

Answer: **£100 x 10 = £1000**

The Goldsmith's Tale



TASK 5: ANSWER THE FOLLOWING QUESTIONS AFTER WATCHING THE VIDEO

- a Name three things that have been used as money in the past
Feathers, cocoa beans, precious stones
- b Why was 'paper money' more attractive than using gold coins?
Portable, convenient, can write out exact amounts
- c How does a bank make profit?
Charges a higher interest on loans that it offers to savers
- d What is a 'run on the bank'?
When all savers want their money back on the same day.



CREDIT CHECK ANSWERS



TASK 7: MATCH THE FOLLOWING RESERVE RATIOS WITH THE COUNTRIES:

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