Money in Motion

Trace how bank loans and central bank policies affect deposits.

E.C.4.4 "Explain how commercial banks expand and contract the money supply through lending, repayment of loans, and reserve requirements, and describe how central banking policies influence these processes."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline where a loan creates or removes deposit money, circle limits on bank lending, and number the central bank policies that can affect lending.

A Loan for a Second Truck

1. On a busy Saturday, a food truck owner asks Harbor Bank for a $20,000 loan to buy a second truck. If the bank approves, it credits her checking account with $20,000. She can now pay the seller, who may deposit the payment at another bank. The loan created a new deposit that people can use to make payments, so the money supply expanded. The bank also records a $20,000 loan asset and must manage the risk that the owner might not repay. Banks cannot approve unlimited loans: they need willing, creditworthy borrowers, enough capital, and funds to settle payments.

2. When the owner pays back $2,000 of loan principal from her checking account, the bank reduces her deposit and the outstanding loan by $2,000. That deposit money disappears from the money supply rather than becoming a pile of cash ready to lend again. Interest is different: paying interest gives the bank income rather than canceling loan principal. If many households and businesses borrow faster than borrowers repay principal, bank lending tends to expand the money supply. If repayments outpace new lending, it tends to contract. These changes can spread across banks as customers make payments.

3. A central bank can influence these choices without deciding who gets each loan. When it raises its policy interest rate, banks often face higher funding costs and charge more for loans. Fewer borrowers may want loans, slowing deposit creation. Lower rates can encourage lending if banks and borrowers respond. Where a reserve requirement applies, it sets a minimum amount of reserves banks must hold against certain deposits. Raising that requirement can constrain new lending if reserves are scarce. Central banks can also supply or withdraw reserves, affecting banks' ability to settle payments. These policies influence lending, but they do not guarantee it.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why does Harbor Bank's loan expand the money supply even though the bank does not hand over paper bills?

2. How does repaying $2,000 of loan principal affect the owner's deposit and the money supply?

3. How could raising the policy interest rate and raising an applicable reserve requirement each slow the creation of new deposits?

4. Suppose banks make $5,000 in new loans while borrowers repay $8,000 of principal. What is the net change in deposits from these transactions, and why might a policy rate cut not reverse it right away?

3 YOUR TURN

Your own words

Invent a small business loan different from the food truck loan. In 4 to 5 sentences, explain how the loan and a later principal repayment change deposits, then explain how one central bank policy could affect future lending and why its effect is not guaranteed.

ANSWER KEY

Money in Motion

HIGH SCHOOL · E.C.4.4

PART 1 · READ AND MARK

Underline where a loan creates or removes deposit money, circle limits on bank lending, and number the central bank policies that can affect lending. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why does Harbor Bank's loan expand the money supply even though the bank does not hand over paper bills?	**Harbor Bank credits the owner's checking account, creating a new deposit she can use to make payments.**
2	How does repaying $2,000 of loan principal affect the owner's deposit and the money supply?	**Her deposit and outstanding loan each fall by $2,000. The reduction in deposit money contracts the money supply.**
3	How could raising the policy interest rate and raising an applicable reserve requirement each slow the creation of new deposits?	**A higher policy rate can make loans more expensive and reduce demand for them. A higher reserve requirement can constrain new lending if reserves are scarce.**
4	Suppose banks make $5,000 in new loans while borrowers repay $8,000 of principal. What is the net change in deposits from these transactions, and why might a policy rate cut not reverse it right away?	**Deposits fall by a net $3,000. A rate cut may encourage lending, but banks still need willing, creditworthy borrowers and enough capital.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A florist borrows $12,000 to install a cooler, and her bank credits her checking account, creating new deposit money. She pays a supplier, who deposits the money at another bank. Later, she repays $3,000 of principal from her account, reducing deposits and the loan balance by $3,000. If the central bank raises its policy rate, more expensive loans may slow future borrowing and deposit creation. But a rate change cannot determine whether banks will find creditworthy borrowers willing to take loans.

Accept other plausible businesses and central bank policies if the response correctly traces deposit creation, deposit reduction through principal repayment, and a reason the policy's effect is uncertain. For question 4, the net decrease is $3,000 from the transactions stated.