

Money Creation Example

Econ 202

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Working with t-accounts, let's assume we have an economy where the following is true:

There are 3 banks in our banking system

Required Reserve ratio = 10%

Consumers do not hold cash (all cash deposited in the bank)

Banks loan out all available excess reserves (so that ER = 0)

Let's assume further that DD = Demand Deposits, RR = Required Reserves, L = Loans, and that the overall money supply is the sum of currency and demand deposits (i.e. $C + DD = MS$)

Assume that someone discovers \$100 on Day 0. Here are the t-accounts at each bank.

	Bank 1	Bank 2	Bank 3				
	A L	A L	A L				
Day 0	100 RR 900 L 0 ER	DD 1000	100 RR 900 L 0 ER	DD 1000	100 RR 900 L 0 ER	DD 1000	\$100 cash is held

MS on Day 0 = \$100 + (\$1000 + \$1000 + \$1000)

MS on Day 0 = \$3100

Assume the \$100 is deposited in Bank 1.

	Bank 1	Bank 2	Bank 3				
	A L	A L	A L				
Day 1	110 RR 900 L 90 ER	DD 1100	100 RR 900 L 0 ER	DD 1000	100 RR 900 L 0 ER	DD 1000	\$100 deposit in Bank 1

MS on Day 1 = \$0 + (\$1100 + \$1000 + \$1000)

MS on Day 1 = \$3100

Bank 1 has \$90 in ER, which they loan out. The loan recipient deposits that \$90 in Bank 2.

	Bank 1	Bank 2	Bank 3	
	A L	A L	A L	
Day 2	110 RR DD 1100 990 L 0 ER	109 RR DD 1090 900 L 81 ER	100 RR DD 1000 900 L 0 ER	\$90 loan by Bank 1 (\$90 deposit in Bank 2)

MS on Day 2 = \$0 + (\$1100 + \$1090 + \$1000)

MS on Day 2 = \$3190

Money Supply has increased

Bank 2 has \$81 in ER, which they loan out. The loan recipient deposits that \$81 in Bank 3.

	Bank 1	Bank 2	Bank 3	
	A L	A L	A L	
Day 3	110 RR DD 1100 990 L 0 ER	109 RR DD 1090 981 L 0 ER	108 RR DD 1081 900 L 73 ER	\$81 loan by Bank 2 (\$81 deposit in Bank 3)

MS on Day 3 = \$0 + (\$1100 + \$1090 + \$1081)

MS on Day 3 = \$3271

Money Supply has increased again

Money Supply increases are the result of banks making loans.