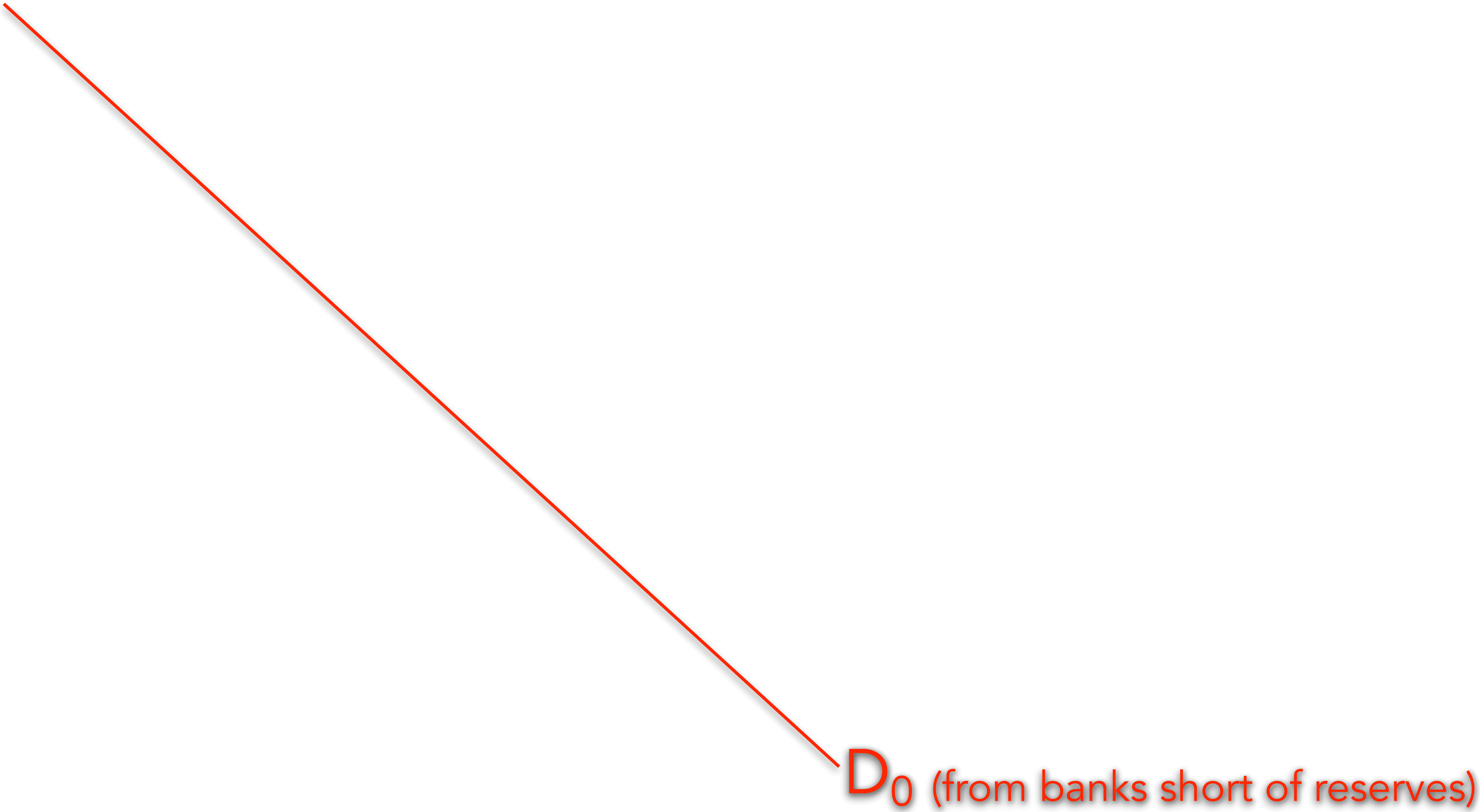
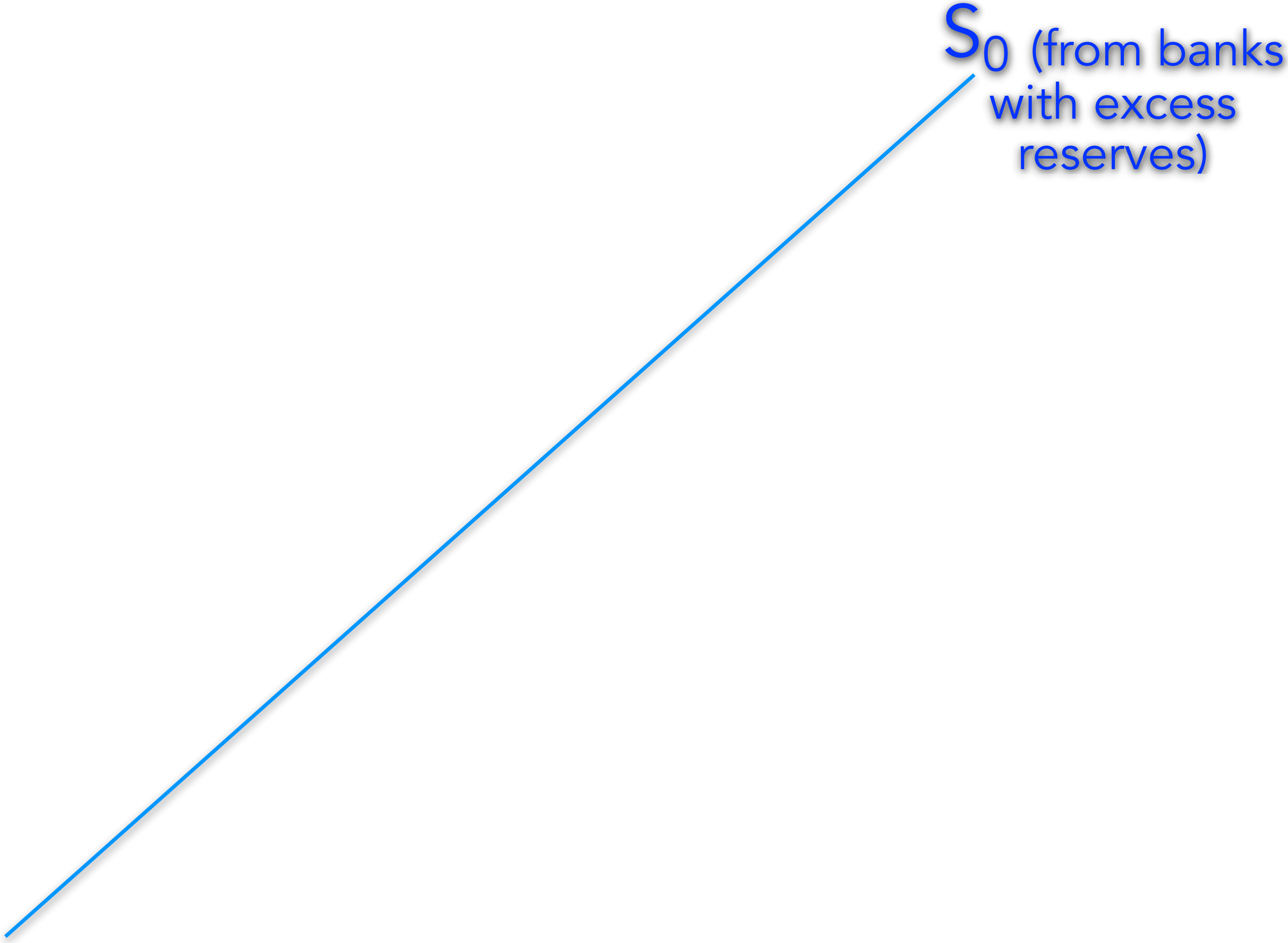

D_0 (from banks short of reserves)


S0 (from banks
with excess
reserves)

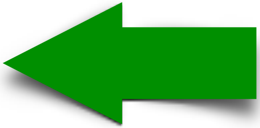
Federal Funds Rate

ffr

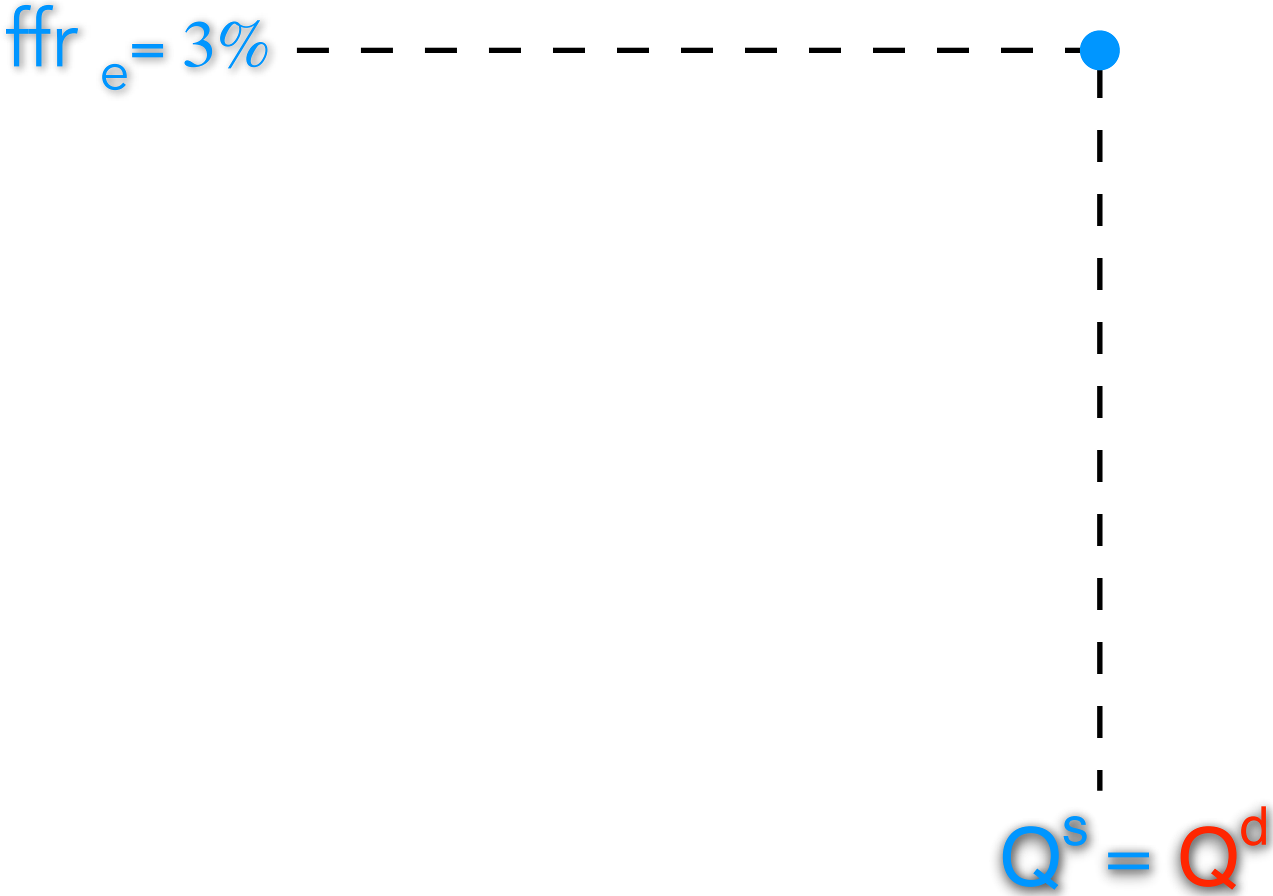
The effect of a decrease in GDP on the Federal Funds Rate

The public deposits a smaller portion of their income in checking accounts

Deposits decrease

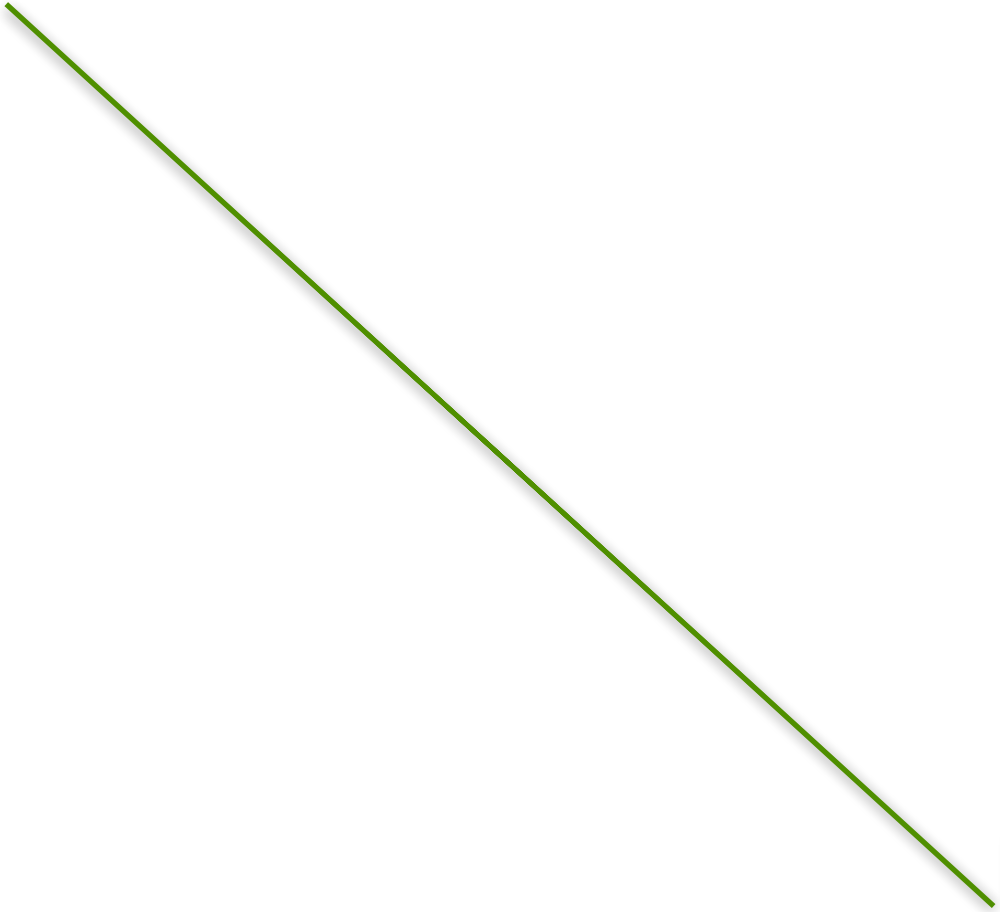


A leftward shift in the Demand of funds

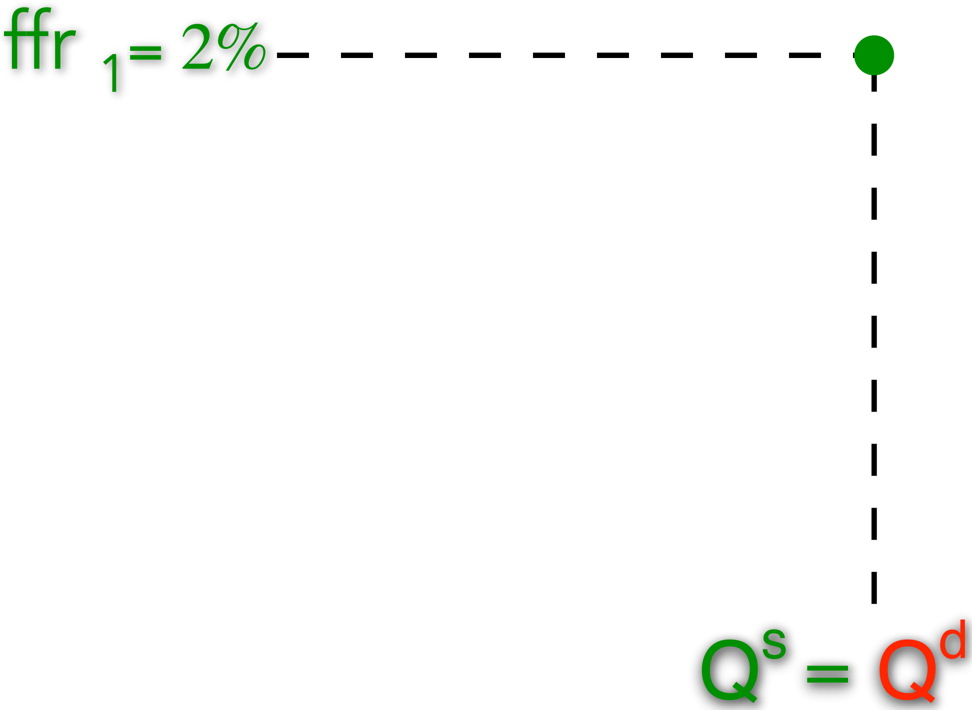


$ffr_e = 3\%$
$Q^s = Q^d$

Assume the market starts at equilibrium



D_1 (from banks short of reserves)



ffr 1= 2%
Qs = Qd

The Fed Funds Rate decrease

When GDP decrease, consumers buy less: The public need less liquid balances for fewer transactions

Required Reserves

decrease

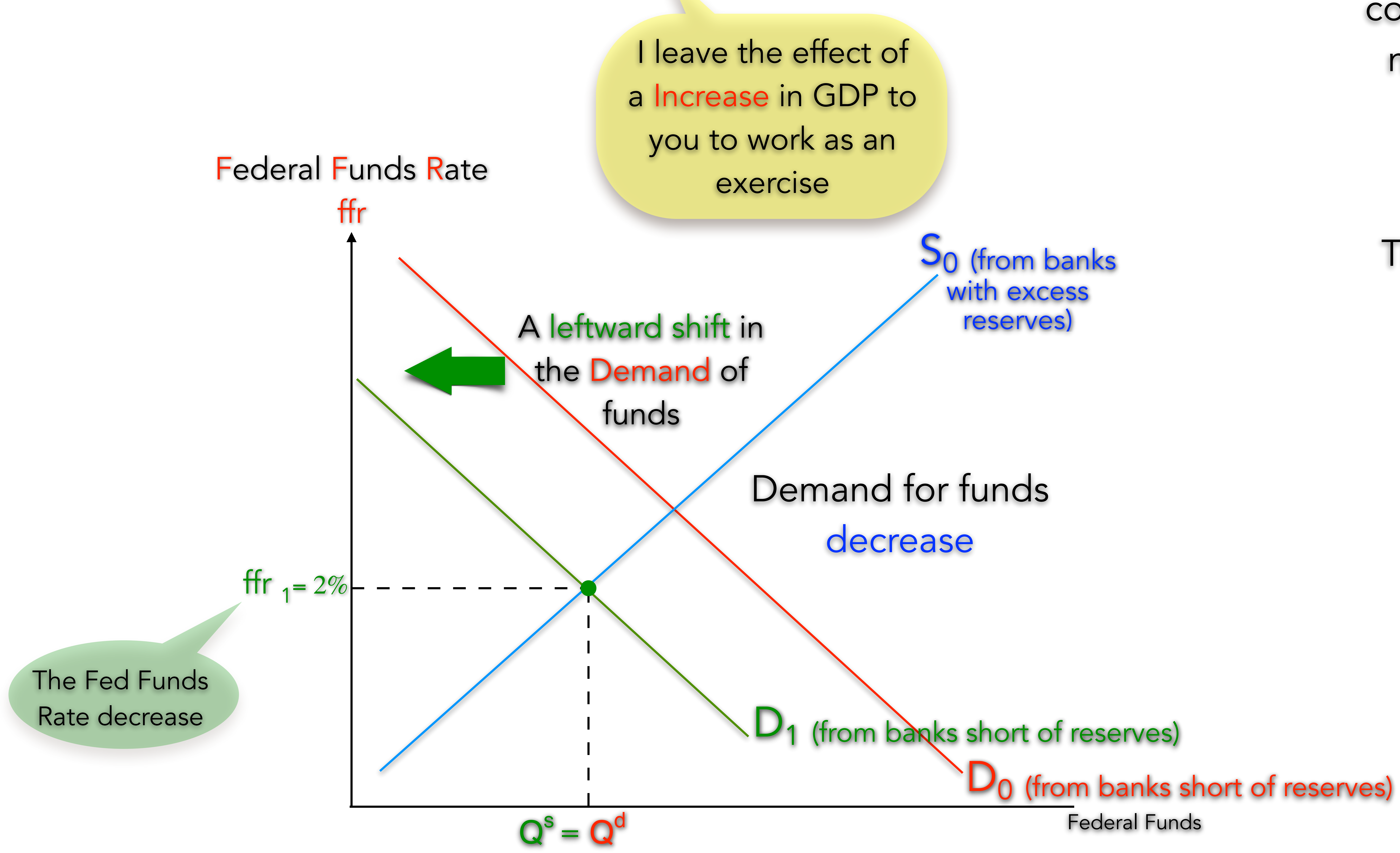
Demand for funds

decrease

Fewer banks will end the day short of reserves

I leave the effect of a Increase in GDP to you to work as an exercise

The effect of a decrease in GDP on the Federal Funds Rate



When GDP decrease, consumers buy less: The public need less liquid balances for fewer transactions

The public deposits a smaller portion of their income in checking accounts

Deposits decrease

Required Reserves decrease

Fewer banks will end the day short of reserves

1000

1000

TREASURY BOND
OF 2002-2007
Dated February 15, 1977
Due February 15, 2007
CUSIP 912810 BX 5
Redeemable on call on and after
February 15, 2002
CIRCULAR No. 4-77

7461A

5 3A1 4

THE UNITED STATES OF AMERICA

FOR VALUE RECEIVED PROMISES TO PAY TO THE BEARER THE SUM OF

ONE THOUSAND DOLLARS

ON THE DUE DATE, AND TO PAY INTEREST ON THE PRINCIPAL SUM FROM THE DATE HEREOF, AT THE RATE SPECIFIED HEREON. THIS BOND AND INTEREST COUPONS ARE PAYABLE AT THE DEPARTMENT OF THE TREASURY, WASHINGTON, D.C., OR AT ANY FEDERAL RESERVE BANK OR BRANCH. THIS BOND IS ONE OF A SERIES OF BONDS, AUTHORIZED BY THE SECOND LIBERTY BOND ACT, AS AMENDED, ISSUED PURSUANT TO THE DEPARTMENT OF THE TREASURY CIRCULAR REFERRED TO HEREON. ALL OR ANY OF THE BONDS OF THIS SERIES MAY BE REDEEMED, AT THE OPTION OF THE UNITED STATES, ON AND AFTER FEBRUARY 15, 2002, AT PAR AND ACCRUED INTEREST, ON ANY INTEREST DAY OR DAYS, ON FOUR MONTHS' NOTICE OF REDEMPTION GIVEN IN SUCH MANNER AS THE SECRETARY OF THE TREASURY SHALL PRESCRIBE. IN CASE OF PARTIAL REDEMPTION THE BONDS TO BE REDEEMED WILL BE DETERMINED BY SUCH METHOD AS MAY BE PRESCRIBED BY THE SECRETARY OF THE TREASURY. FROM THE DATE OF REDEMPTION DESIGNATED IN ANY SUCH NOTICE, INTEREST ON THE BONDS CALLED FOR REDEMPTION SHALL CEASE. THE INCOME DERIVED FROM THIS BOND IS SUBJECT TO ALL TAXES IMPOSED UNDER THE INTERNAL REVENUE CODE OF 1954. THIS BOND IS SUBJECT TO ESTATE, INHERITANCE, GIFT OR OTHER EXCISE TAXES, WHETHER FEDERAL OR STATE, BUT IS EXEMPT FROM ALL TAXATION NOW OR HEREAFTER IMPOSED ON THE PRINCIPAL OR INTEREST HEREOF BY ANY STATE, OR ANY OF THE POSSESSIONS OF THE UNITED STATES, OR BY ANY LOCAL TAXING AUTHORITY. THIS BOND IS ACCEPTABLE TO SECURE DEPOSITS OF PUBLIC MONEYS. IT IS NOT ACCEPTABLE IN PAYMENT OF TAXES.

WASHINGTON, D. C., FEBRUARY 15, 1977.

William E. Simon
SECRETARY OF THE TREASURY

1000 ONE THOUSAND DOLLARS 1000