Damietta University
Faculty of Commerce
English Program

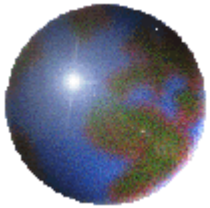
Financial Institutions, Markets, and Money

Third Year, Week 6, Lecture 6

Compiled and Edited By:

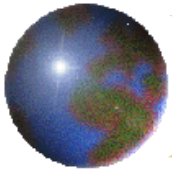
Dr. Soliman Rakha

Note that: Lecture 6 covers slides from 15 through 30, due to 1 through 14 been discussed in lecture 5.



CHAPTER 2

THE FEDERAL RESERVE AND ITS POWERS



Reserve System (the Fed) and its impact on interest rates and the economy.

It is often said that the chair of the Federal Reserve Board is the second most powerful person in the United States. Only the president, who is commander in chief of our armed forces, is more powerful.

Where does all this power come from?

It comes from the Fed's role as the nation's central bank and its responsibilities and powers to conduct monetary policy.

The Fed's monetary policy actions have a direct effect on the level of interest rates, the availability of credit, and the supply of money, all of which have a direct impact on financial markets and institutions and, more important, on the level of economic activity and the rate of inflation.

Purposes of a Central Bank

- Supervise nation's money supply and payments system
- Regulate other financial institutions, especially depository institutions
- "Lender of last resort" when financial system has liquidity problems
- National government's "fiscal agent" (i.e. depository bank)

THE CURRENT STRUCTURE OF THE FED

The modern-day Federal Reserve System consists of

- The 12 Federal Reserve Banks
- Several thousand member commercial banks
- The Board of Governors
- The Federal Open Market Committee (FOMC)

The 12 Federal Reserve Banks: Many operational functions, less autonomy

- Each FRB provides basic services in its district -
  - processing checks and electronic payments
  - issuing Federal Reserve Notes
  - holding reserves of banks and other depository institutions
  - monitoring regional economic conditions
  - advising the Board of Governors
  - helping make monetary policy
- The Federal Reserve Banks are part of a coordinated national monetary policy

Several thousand member commercial banks "own" the Federal Reserve Banks

- **Member banks represent "dual banking" in the US (State Banks and National Banks)**
  - All National Banks *must* be members of the Fed
  - About 17% of state banks *choose* to join
  - Some 36% of all US banks are in, representing about 76% of deposits

- **Member banks buy stock in the FRB for their district**
  - collect dividends set by the Fed but do not otherwise share profits
  - elect 6 of 9 FRB directors but have no other vote or say

  Note: three of the directors are appointed by the Board of Governors.

- **Membership is not the distinction it once was. As of 1980**
  - Fed services are available to any depository institution for a fee
  - Reserve requirements apply to all U.S. depository institutions.

State Banks: Traditional banks that are chartered by a government of one of the fifty states and which are not automatically members of the Fed System.

National bank: is a commercial bank that is a member of the Federal Reserve System.

The Board of Governors runs the Fed

- **7 Governors appointed by President, confirmed by Senate**
  - The Board of Governors of the Fed plays a major role in making U.S. monetary policy.
  - No 2 Governors from same Federal Reserve District.
  - Governors have 14-year terms, expiring every 2 years.
  - Governors' terms are nonrenewable

- **One Governor serves as Chairman**
  - Chairman has 4-year term and may be reappointed
  - When new Chairman is named, old one traditionally leaves (regardless of time left in underlying appointment as Governor).

FOMC sets monetary policy under Board of Governors' control

- **FOMC has 12 members - 8 permanent, 4 rotating**
  - 7 Governors are permanent members
  - President of FRB of New York has permanent seat
  - New York Fed operationally carry out the FOMC instructions
  - Presidents of 4 other FRBs rotate through 1-year terms

- **FOMC's actions substantially influence 2 major financial sector variables -**
  - size of the money supply
  - level of short-term interest rates

Significant powers are concentrated in today's centralized Fed

- Chairman is powerful figure
- Board regulates key aspects of banking and finance beyond monetary policy
- Independence enhances power

Chairman is powerful figure in monetary policy

- sets agenda and chairs meetings of both Board of Governors and FOMC
- public face and voice of the Fed

Board regulates key aspects of banking and finance beyond monetary policy

EXHIBIT 2.5
Important Federal Reserve Regulatory Powers

Regulation	Topics of Regulations	Institutions Affected
A	Establishes Fed discount window policy	Borrowers from discount window
D	Establishes reserve requirements	All depository institutions
E	Regulates electronic funds transfer	All financial institutions
J	Regulates check collection and wire transfers of funds	All institutions using Fed facilities
K	Regulates international banking in United States and by U.S. banks abroad	Domestic and foreign banks
M	Regulates consumer leasing transactions	Institutions leasing consumer goods
G, U, T, X	Establishes securities margin requirements	Brokers, dealers, banks, and individuals
Y	Sets rules applicable to bank holding companies	Banks and their affiliates
Z, B, BB, C	Regulates consumer and mortgage credit transactions according to the following Acts: Z = Truth-in-Lending and Fair Credit Billing Acts B = Equal Credit Opportunity Act BB = Community Reinvestment Act C = Home Mortgage Disclosure Act	Institutions offering consumer and mortgage credit
P	Privacy of consumer financial information	All financial institutions
Q	Prohibits interest on demand deposits; formerly set interest rate ceilings on savings and time deposits	All commercial banks
DD	Regulates interest rate disclosures on deposits	All depository institutions offering interest-bearing deposits

Focus on Practice: Reserve Requirements

Open the link below and ask following questions:

https://www.federalreserve.gov/monetarypolicy/reservereq.htm

Define the Reserve Requirements, and its purpose?

What is the Low Reserve Tranche Amount (millions of U.S. dollars)?

What is the Exemption amount (millions of U.S. dollars)?

CAIRO – 4 October 2017: The Central Bank of Egypt (CBE) raised the Required Reserve Ratio (RRR)

http://www.egypttoday.com/Article/3/26052/Explaining-the-Required-Reserve-Ratio

PROBLEM: Computing the required reserve

Suppose the current reserve requirements set by the Federal Reserve are as follows:

Type of Liability	Requirement Percentage of liabilities
Transaction deposits $0 to $10.7 million	0
Transaction deposits more than $10.7 million to $55.2 million	3
Transaction deposits more than $55.2 million	10
Non-personal time deposits	3
Eurocurrency liabilities	0

A bank has cash of $2 million, reserve deposits at the Federal Reserve of $25 million, transaction deposits of $275 million, non-personal time deposits of $100 million. Calculate the bank's required reserves, excess reserves, and total reserves.

Solution

Total reserves = $2mln. + $25mln. = $27mln.
Required reserves =
($55.2mln. - $10.7mln.)*0.03 + ($275mln. - $55.2mln.)*0.1 + $100mln.*0.03 = $26.315mln.
Excess reserves = $27mln. - $26.315mln = $0.685mln.

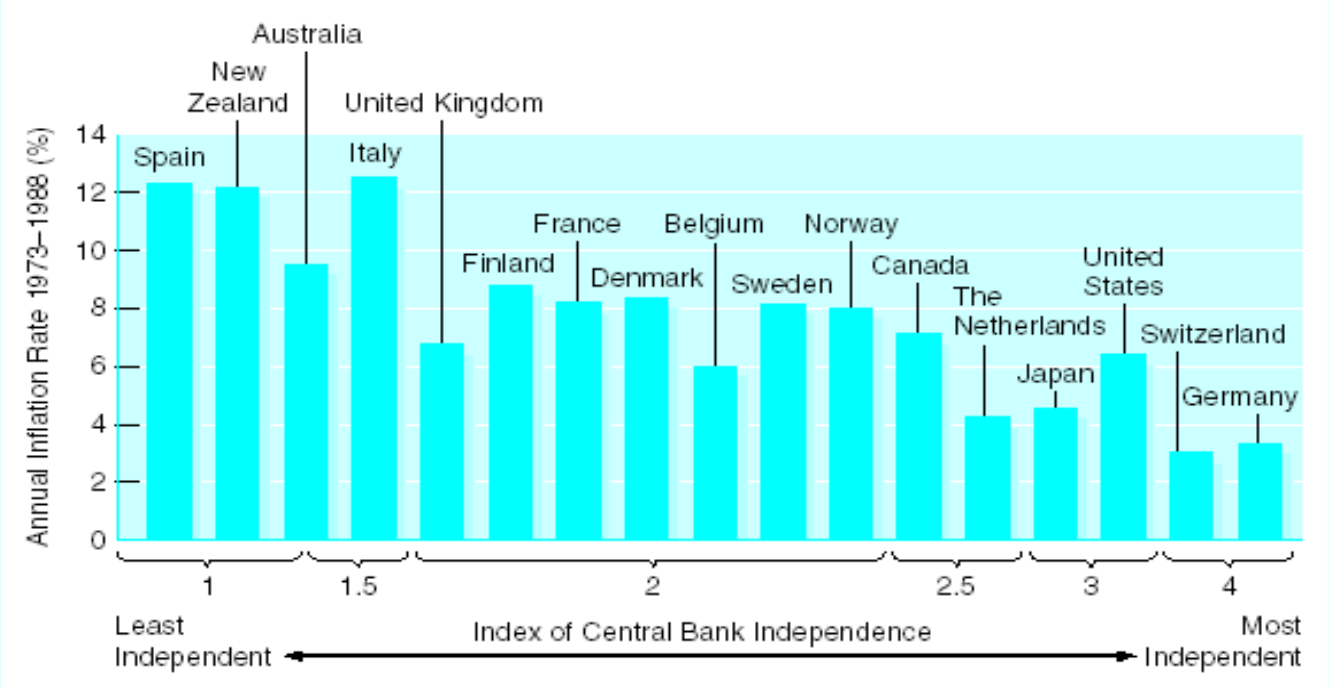
Fed's independence enhances its power

- No direct channels of political or fiscal pressure
  - Fed is a creature of Congress, but not directly under its authority
  - Board is appointed by but not answerable to President
  - No fiscal pressure; Fed funds itself—
    - income exceeds expenses by about $20 billion/year
    - Congress thus has no "power of the purse" over Fed

- Ultimately independent *within*, not *of* government
  - What Congress creates, Congress can modify or destroy.
  - Fed remains independent because most politicians want it that way-
    - mostly agree that monetary policy is not partisan issue
    - independent Fed can absorb some blame if the economy falters
    - independent Fed can take necessary but unpopular steps

EXHIBIT 2.6

Central Bank Independence and a Country's Rate of Inflation



Countries with independent central banks have lower rates of inflation than countries with less independent central banks.

Source: Alberto Alesina and Lawrence Summers, "Central Bank Independence and Macroeconomic Performance, Some Comparative Evidence," *Journal of Money, Credit, and Banking* 25 (1993): 151–162.

Fed's balance sheet reflects its relationship to money supply and financial system

- **Main operating assets—**
  - Loans at Discount Window
  - US Government and Agency Securities
  - "CIPC"—Cash Items in Process of Collection
- **Main operating liabilities—**
  - Federal Reserve Notes in Circulation
  - Depository Institution Reserves
  - "DACI"—Deferred Availability Cash Items

The discount window is an instrument of monetary policy (usually controlled by central banks) that allows eligible institutions to borrow money from the central bank, usually on a short-term basis, to meet temporary shortages of liquidity caused by internal or external disruptions.
CIPC: refers to checks are written on the depository institutions.
DACI: refers to checks being processed by the Fed that call for payment by the Fed to the recipient.

Fed's Balance Sheet, 12/31/05

EXHIBIT 2.7
Fed Balance Sheet (December 2005)

	Millions	% of Total[a]
Assets		
Gold certificates	$11,039	1.3%
Special drawing rights certificates	2,200	0.3
Coin	686	0.1
Cash items in process of collection (CIPC)	5,930	0.7
Loans to depository institutions	72	0.0
Securities purchased under agreements to resell	46,750	5.5
U.S. government and agency securities	750,202	88.5
Investments denominated in foreign currency	18,928	2.2
Accrued interest receivable	5,874	0.7
Bank premises and equipment	2,252	0.3
Other assets	3,394	0.4
Total	$847,327	100.0%
Liabilities and capital		
Federal Reserve notes	$758,359	89.5%
Securities sold under agreements to repurchase	30,505	3.6
Deposits		
Depository institution reserves	19,043	2.2
U.S. Treasury	4,573	0.5
Other	393	0.0
Deferred credit items	5,039	0.6
Interest on Federal Reserve notes due U.S. Treasury	1,784	0.2
Accrued benefit costs	913	0.1
Other liabilities	281	0.0
Capital	$26,437	3.1
Total	$847,327	100.0%

[a]Column does not add to 100% because of rounding.

Source: Board of Governors, Federal Reserve System, *92d Annual Report, 2005.*

Operationally, the Fed conducts monetary policy by changing the monetary base. The monetary base *(MB)* equals the sum of the currency in circulation *(C)* plus the total reserves *(TR)* in the banking system.

$$MB = C + TR \tag{2.1}$$

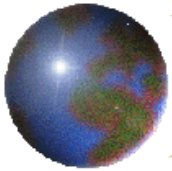
It is important to note that the **total reserves (*TR*)** held by a bank can be divided into two components: (1) reserves that the bank is required to hold by law, called **required reserves (*RR*)**, and (2) reserves in excess of those required, called **excess reserves (*ER*).** Thus,

$$TR = RR + ER. \tag{2.2}$$

As mentioned previously, a bank must hold required reserves that are a specified percentage (fraction) of the total deposits at the bank. This fraction is called the *required reserve ratio or reserve requirement,* expressed as a percentage. *For example*, if the reserve requirement is 10 percent and the bank has $10,000 in deposits, the bank's required reserves are $1,000. Thus, the formula for required reserves is

$$RR = k \times DEP \text{ or } k = RR/DEP. \tag{2.3}$$

where k is the required reserve ratio and DEP is the total deposits held at the bank. Using Equation 2.2, if the bank has total reserves of $1,500, the bank has excess reserves of $500 ($1,500 − $1,000).



LEARNING BY DOING 2.1
Computing a Bank's Excess Reserve Position

PROBLEM: A regional bank receives a new demand deposit (*DD*) of $5,000,000, in addition to existing demand deposits of $4,000,000. The current reserve requirement is 10 percent. The bank has $100,000 in vault cash and $350,000 in deposits at the Federal Reserve that are not yet invested. How much in excess reserves does the bank have available to make new loans?

APPROACH: This is an application of Equations 2.1 and 2.2. You first need to determine the amount of required reserves (*RR*) using the reserve requirement ratio (*k*) and the amount of deposits the bank has. Once *RR* is determined, you need to recognize that the bank has reserves already in the form of vault cash and deposits at the Fed. You can then use this information to compute the amount of excess reserves that the bank has available to loan out using Equation 2.1.

SOLUTION: Amount of required reserves (*RR*) needed by the bank:

$$RR = DD \times k = (\$5{,}000{,}000 + \$4{,}000{,}000) \times 0.10$$
$$= \$900{,}000$$

Total reserves (*TR*) at the bank in

$$TR = \text{cash} + \text{deposits at the Fed} + \text{new deposits}$$
$$= \$100{,}000 + \$350{,}000 + \$5{,}000{,}000$$
$$= \$5{,}450{,}000$$

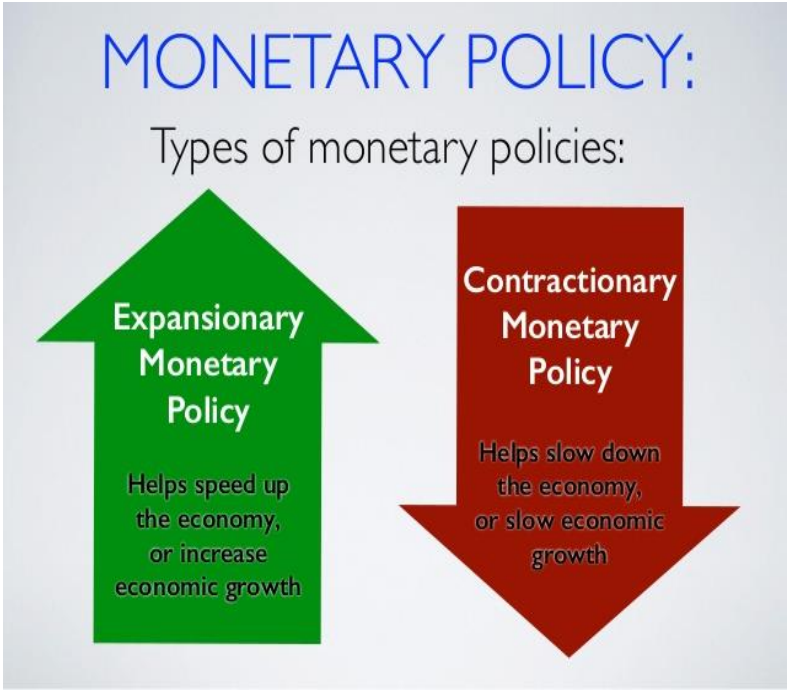
Using Equation 2.1, the excess reserves (*ER*) available to the bank are:

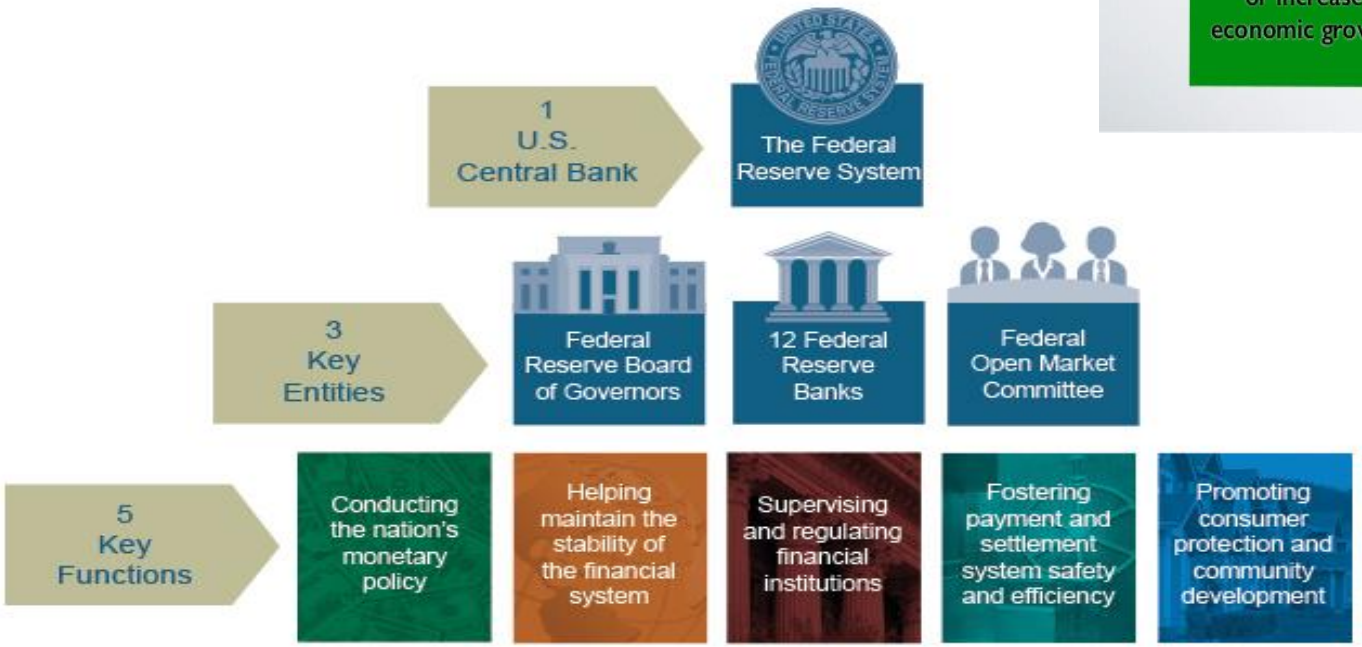
$$ER = TR - RR$$
$$= \$5{,}450{,}000 - \$900{,}000$$
$$= \$4{,}550{,}000$$

The bank can use its excess reserves of $4.55 million to make new loans and/or invest in securities.

Fed has 3 major "Tools of Monetary Policy"

- Open Market Operations
- Discount Rate
- Reserve Requirements





Open market operations: *most useful—and thus most important—tool*

- Fed directly changes money supply by buying or selling US government securities on open secondary market—
  - Pays for "buys" by crediting new reserves to special bank accounts of selected dealers
  - Collects for sales by taking existing reserves back
  - Only the central bank can unilaterally create or retire money in this way

Effects of Open Market Operations

- Money supply changes immediately and dollar for dollar, making Open Market Ops flexible and precise

- Short-term interest rates are pressured upward when Fed sells and downward when it buys

Control of Open Market Operations

- FOMC decides whether, when, and how much to buy or sell
- FOMC meets 8 times a year
- The FOMC issues *policy directives* to Open Market Desk at FRB of New York

Discount Rate: *Interest rate at which Fed lends to depository institutions*

- As Fed lends “at The Window”, money supply increases
- Changes in Discount Rate theoretically affect incentives to borrow
- Banks in early 20th century relied on Window; now they have other choices for managing liquidity, are wary of “Discount Window scrutiny”
- Today, Discount Rate is more signal than direct control—
  - Increase means Fed wants smaller money supply and higher rates
  - Decrease means Fed wants larger money supply and lower rates

Reserve Requirements: *least-used tool of monetary policy*

- Depository institutions must reserve set percentage of certain types of deposits
  - Most reserves are held at FRB for that District
  - Reserves may also be held as vault cash

- Monetary Control Act of 1980 –
  - subjects all US depository institutions to uniform reserve requirements
  - sets limits within which Fed is to specify required reserve ratio

- Reserve requirements are a structural control
  - Changes in reserve requirements have dramatic effects.
  - Reserve requirements are not useful for “fine-tuning”

EXHIBIT 2.8
Reserve Requirements

Type of Liability	Requirement (percentage of liabilities)	Effective Date
Net transaction accounts		
$0–$8.5 million	0	12/21/2006
More than $8.5 million to $45.8 million	3	12/21/2006
More than $45.8 million	10	12/21/2006
Nonpersonal time deposits	0	12/27/1990
Eurocurrency liabilities	0	12/27/1990

Source: Federal Reserve Board (http://www.federalreserve.gov/monetarypolicy/reservereq.htm).

Changes in Reserve Requirements

EXHIBIT 2.9
How Changes in Reserve Requirements Change the Money Supply (Demand Deposits)

Initial Condition

Assets		Liabilities	
Reserves	$1,000	Demand Deposits	$5,000
Required	1,000		
Excess	0		
Loans	4,000		
Total	$5,000	Total	$5,000

Reduction in Reserve Requirements

Assets		Liabilities	
Reserves	$1,000	Demand Deposits	$5,000
Required	500		
Excess	500		
Loans	4,000		
Total	$5,000	Total	$5,000

New Equilibrium

Assets		Liabilities	
Reserves	$1,000	Demand Deposits	$10,000
Required	1,000		
Excess	0		
Loans	9,000		
Total	$10,000	Total	$10,000

EXHIBIT 2.10
How Tools of Monetary Policy Affect the Money Supply

Monetary Policy Tool	Increase in Money Supply	Decrease in Money Supply
Open-market operations	FOMC directs the trading desk to purchase Treasury securities in the secondary market	FOMC directs the trading desk to sell Treasury securities in the secondary market
Adjust the discount rate	Board of Governors lowers the discount rate	Board of Governors raises the discount rate
Adjust bank reserve requirements	Board of Governors lowers the reserve ratio (within limits) to cause a higher money multiplier	Board of Governors raises the reserve ratio (within limits) to cause a lower money multiplier

Note: The Federal Open Market Committee (FOMC) consists of twelve members

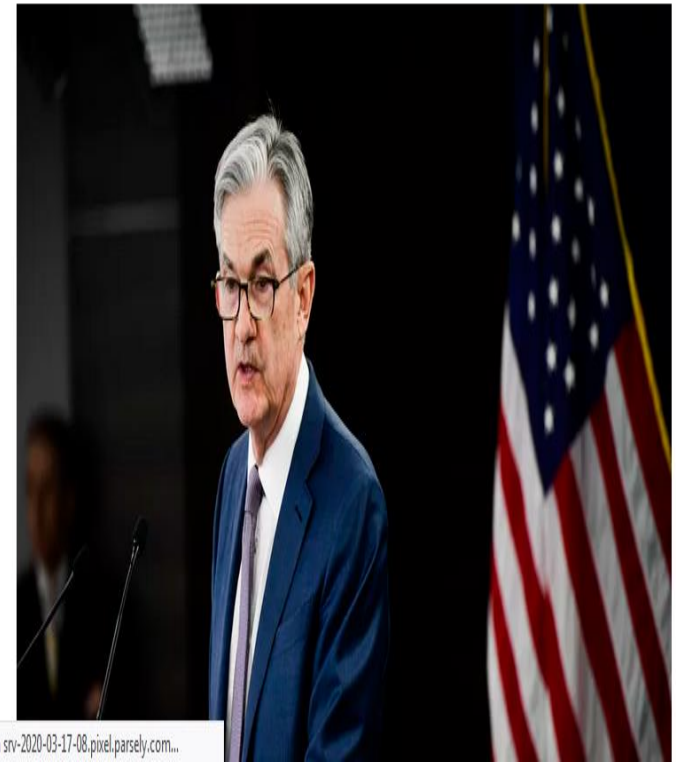
Focus On Practice

The Fed is bringing interest rates to 2008 crisis levels to fight a coronavirus downturn

Interest rates are now at zero, just like in the 2008 financial crisis.

By Dylan Matthews | @dylanmatt | dylan@vox.com | Mar 15, 2020, 6:00pm EDT

SHARE



MOST READ

البنك المركزى يخفض الفائدة 3% بشكل استثنائى

الإثنين، 16 مارس 2020 06:14 م