

Lecture 3: Fed and Monetary Policy Tools

Reading: Chap19, 20

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Origins of Today's Banking Industry

- The National Banking Act of 1863 created the dual banking system of federal and state banks.
- Federally chartered banks were originally allowed to issue bank notes as currency.
- State banks came up with the demand deposit as a substitute for bank notes.

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Origins of Today's Banking Industry

- Prior to 1863, banks issued bank notes that functioned like our present day currency but were the obligations of individual banks.
 - Because of the risk of failure, some banks' notes traded at a discount.
 - The quantity of money in circulation fluctuated with the business cycle, possibly exaggerating those cycles.
- From 1863 to 1914 banknotes were backed by holdings of U.S. government bonds.

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Origins of the Federal Reserve System

- Why the Banking Industry Is Regulated
 - Bank run: many depositors withdraw their deposits and the bank's funds are exhausted.
 - Contagion: spreading of bad news about one bank to include other banks.
 - Bankers' private information limits depositors' ability to sort out weak banks.
- These problems lead to the passage of the Federal Reserve Act in 1913.

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Fed's Functions

- Fed was created in 1913 to serve as a lender of last resort and issue currency.
Fed's functions:
 1. conducting the nation's monetary policy
 2. supervising and regulating banking institutions and protecting the credit rights of consumers
 3. maintaining the stability of the financial system
 4. providing certain financial services to the U.S. government, the public, financial institutions, and foreign official institutions.

<http://www.federalreserve.gov/>

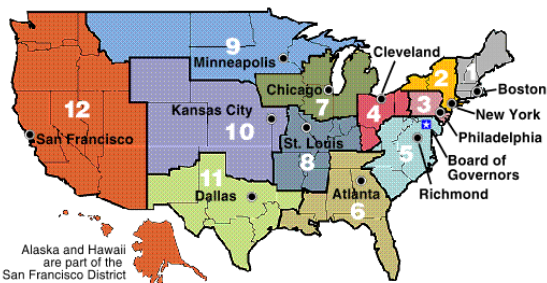
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Federal Reserve Banks

- The Federal Reserve Act created 12 Federal Reserve districts, each with a district bank.
- Each district bank has a board of directors consisting of nine members.
- Subject to the board's approval, the nine directors elect the president of that bank.
- The 12 Federal Reserve banks carry out many duties of the Fed.

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Geographic Decentralization



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12 Federal Reserve District Banks

- Owned by the private commercial banks of the district who are Federal Reserve System members
- each one has 9 directors
 - 6 chosen by member banks
 - 3 chosen by Board of Governors
 - those 9 elect a president, subject to Board of Governors veto
 - of the 9 directors:
 - 3 = bankers (bank chosen)
 - 3 = business leaders (bank chosen)
 - 3 = reps of the “public interest” (BoG chosen)

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Fed Reserve District Bank Functions:

- Clear checks
- replace worn currency with new
- evaluate district banks’ mergers and new activities applications
- make discount loans to district banks
- act as liaison between Fed and business
- collect data on business conditions in the district
- examine bank state-chartered member banks
- conduct monetary policy related research

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District Banks’ Role in Monetary Policy:

- Decides which district banks, members or nonmembers, get discounts
- suggest a discount rate (set by BoG)
- selects 1 commercial bank to sit on Federal Advisory Council
- 5 of the 12 district bank presidents sit on the FOMC, which directs open market operations (Most Important Role)

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BOG

- Board of Governors:
 - 7 governors total, including a chairman
 - each serves 1 nonrenewable 14-year term, except chairman, who serves a renewable 4 year term
 - term expirations staggered every 2 years
 - each from a different district
 - all are FOMC members

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BoG’s Powers:

- chairman =
 - link to media
 - link to U.S. President
 - link to Congress
 - directs the board’s econ. research efforts
 - sets discount rate
- sets required reserves ratio (within statutory limits)
- sets margin requirements (limit the use of credit for purchasing or carrying securities)
- supervises foreign banks operating in the U.S.

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FOMC

- Composed of 7 Governors & 5 district bank presidents (one of which is always FRBNY president)
- chairman = Chairman of the BoG
- directs FRBNY about open market operations, i.e. the purchase/sale of securities. Those sales affect:
 - MB & MS
 - federal funds rate
- meet every 6 weeks

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FOMC Decision Making

- Fed governors and all the Fed district bank presidents meet, along with research staffs
- economic forecasts: green, blue, beige books
- discussion
- decision on monetary policy

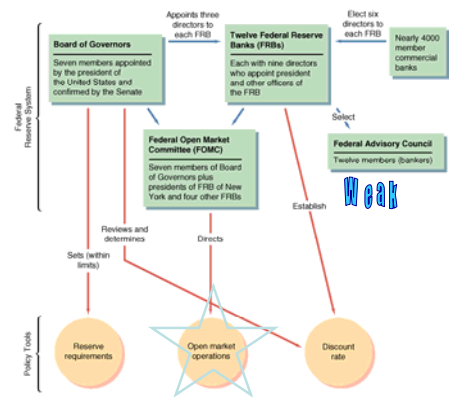
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New Fed Directive

- According to a recent WSJ article, the Fed will no longer discuss its “bias” towards raising rates
- instead will describe how the FOMC views “risks” to the economy:
 1. Inflation risk > econ. slowdown risk
i.e. leaning toward higher interest rates
 2. Economic slowdown > inflation risk
i.e. leaning toward lower interest rates
 3. Economic slowdown = inflation risk
i.e. stay the course

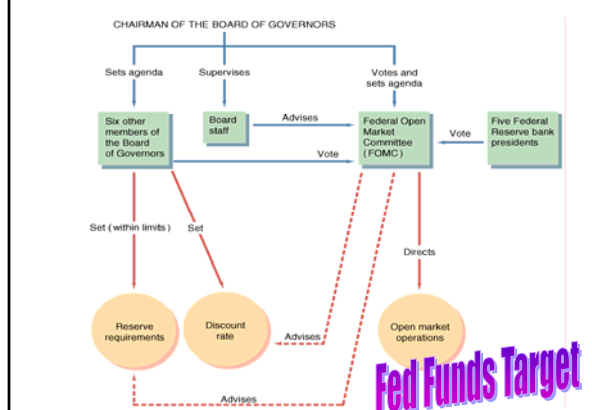
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Fed's Formal Structure



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Real Power Structure in the Fed



Power in the Fed

- The Board of Governors and the FOMC exert most of the Fed's formal influence.
- The informal power of the chairman, the board staff, and the FOMC predominates.
- Member banks have little actual influence within the system.

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What makes The Fed somewhat but not completely independent?

- Relatively long, uncallable terms
- Controls its own budget

BUT:

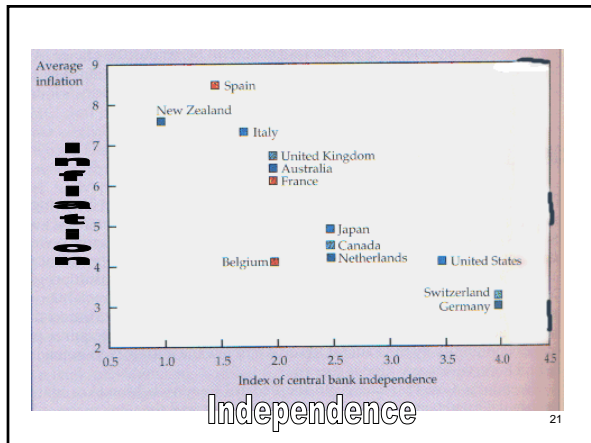
- The Fed is the creation of Congress, which can amend the Fed's charter and powers.
- President appoints chairman and governors and can influence legislation

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Comparison of Major Central Banks

- The Fed has the longest fixed term of office for bank board members (14 years).
- The Fed has the shortest term for the head of the central bank (4 years).
- The overall degree of independence of the central bank varies.
- Central bank independence is becoming greater.
- Countries with the most independent central banks have the lowest average

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Other Central Banks

1. Bank of England least independent: Govt. makes policy decisions
2. Bundesbank: most independent—price stability primary goal
3. Bank of Canada and Japan: fair degree of independence, but not all on paper
4. Trend to greater independence: Spain, France, European Central Bank

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Chapter 20

Monetary Policy Tools

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Tools of Monetary Policy

- Open Market Operations
 - the purchases and sales of securities in financial markets by the Fed
- discount loans
- reserve requirements

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Details of OMO

- Conducted by the OMO desk at the FRBNY
- morning = gather and analyze data re: federal funds rate and amt. of reserves in the banking system
- compare changes to the desired of the FOMC
- act appropriately (buy, sell, neither)
- OMO desk traders at the FRBNY would then contact PRIMARY DEALERS (in banks that deal with government securities)
- use TRAPS (Trading Room Automated Processing System)

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Types of Open Market Operations

- **Dynamic transactions** are intended to change monetary policy.
- **Defensive transactions** are aimed at offsetting fluctuations in the base.

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Advantages of OMO

1. Fed has complete control
as long as the Treasury market is liquid
2. Flexible and precise
small or **LARGE** amounts
3. Easily reversed
mistakes can be fixed same day
4. Implemented Quickly
TRAPS makes it fast

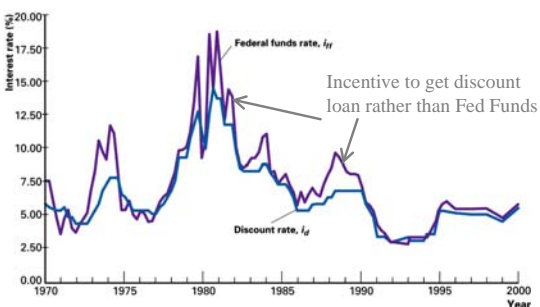
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Discount Policy

- a discount loan INCREASES MB, a discount repayment DECREASES MB
- DISCOUNT WINDOW OPERATIONS:
 - conducted at each district bank
 - control volume of loans through:
 - discount rate (inverse effect)
 - discount terms
- The discount rate set by the Fed generally used to be less than the market-determined federal funds rate. This gap gives banks an incentive to borrow from the Fed.

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Discount Rate and Federal Funds Rate, 1970-2000



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Check discount rate vs. fed fund rate

- <http://www.ny.frb.org/markets/statistics/dlyrates/fedrate.html>

Reserve Requirements

- changes in reserve requirements affect the money supply through the money multiplier (simple or complex one)
- as rr increases, money supply contracts
- as rr decreases, money supply expands
- <http://www.federalreserve.gov/monetarypolicy/reservereq.htm>
 - 0% \$0 million - \$7.8 million
 - 3% More than \$7.8 million - \$48.3 million
 - 10% More than \$48.3 million
 - Effective on 12/22/05

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Disadvantages of Reserve Requirements as Policy Tool

- Effect is VERY, VERY powerful, too powerful in fact:
 - small changes in rr = huge changes in money supply
 - to use it for small changes would be VERY, VERY costly for banks and the Fed
 - would make liquidity mgmt. tough for banks

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Reserve Requirement Controversy

- Some argue that reserve requirements should be eliminated entirely
 - many countries are lowering rr (ECB, 1.5-2%)
 - No empirical evidence that rr creates a more stable MS
- Others (like Friedman) argue the opposite
 - that reserve requirements should be raised to 1 (100%)
 - Fed completely control MS (C+D as D=R)
 - But people argue that other financial institutions would fill the vacuum, Fed could lose control of the effective MS!

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How to Conduct Monetary Policy?

- Expansionary monetary policy
 - Open market operations : purchase securities -- increase bank excess reserves and the monetary base.
 - Reserve requirements : reduce reserve requirements - increase excess reserves and increase the deposit expansion multiplier.
 - Discount rate : reduce the rate : reduce the cost of borrowing reserves.

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How to Conduct Monetary Policy?

- Restrictive monetary policy
 - Open market operations : sell securities, reduce bank reserves and the monetary base.
 - Reserve requirements : increase reserve requirements, reduces excess reserves and the deposit expansion multiplier.
 - Discount rate : increase the discount rate and the cost of borrowing reserve deficiencies.

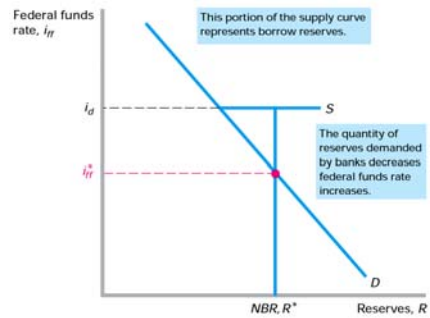
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A Model to Analyze the Policy Tools

- The market for reserves is also known as the federal funds market.
- Banks' demand for federal funds increases as the federal funds rate declines.
- The supply of reserves is the supply by the Fed of borrowed reserves (discount loans) and nonborrowed reserves (supplied by open market operations).

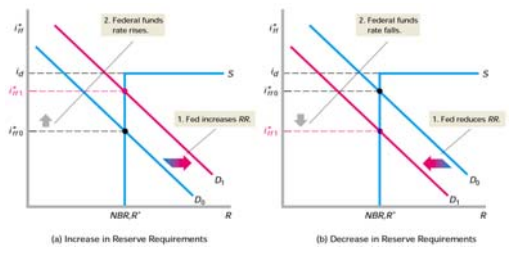
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Figure 20.1 Equilibrium in the Federal Funds Market



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Figure 20.4 Effects of Changes in Required Reserves



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Take-Home Exercise

- Why tight control over money supply implies loss of control over interest rates?
- Why tight control over interest rates implies loss of control over money supply?

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