

Refresher Module

Economics

Money and Banking

Monetary Policy & Fiscal Policy



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Definition of Money

- Economists consider **money** to be any asset that people are generally willing to accept in exchange for goods and services or for payment of debts.

The Functions of Money

- Money must function as:
 - › *a medium of exchange.*
 - › *a store of value.*
 - › *a unit of account.*



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MEDIUM OF EXCHANGE

► Can be used to intermediate the exchange of goods and services.



A common ground for determining value

For Example:

A community uses beaver pelts as a medium to trade for other goods.

UNIT OF ACCOUNT



► A standard numerical unit of measurement of market value for goods, services, and other transactions.

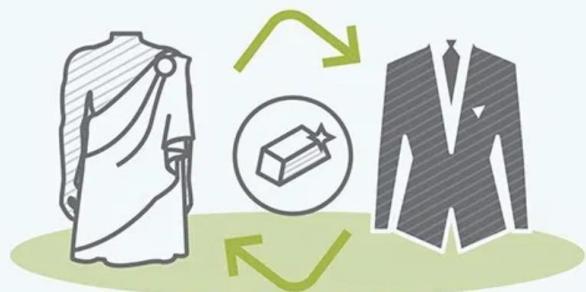
Can be used to compare goods using a common system



For Example:
Housing prices in Japan can be compared using the yen as a unit of account.

STORE OF VALUE

► Maintains its value over time.



Can be spent or exchanged at a later date without penalty

For Example:
An ounce of gold could buy a toga in Roman times, yet it can still buy a nice suit today.

- Source:
<http://money.visualcapitalist.com>

Types of Money

- For thousands of years, societies have used commodity money.
- *Commodity money*: a good used as a medium of exchange that **has intrinsic value in other uses**.

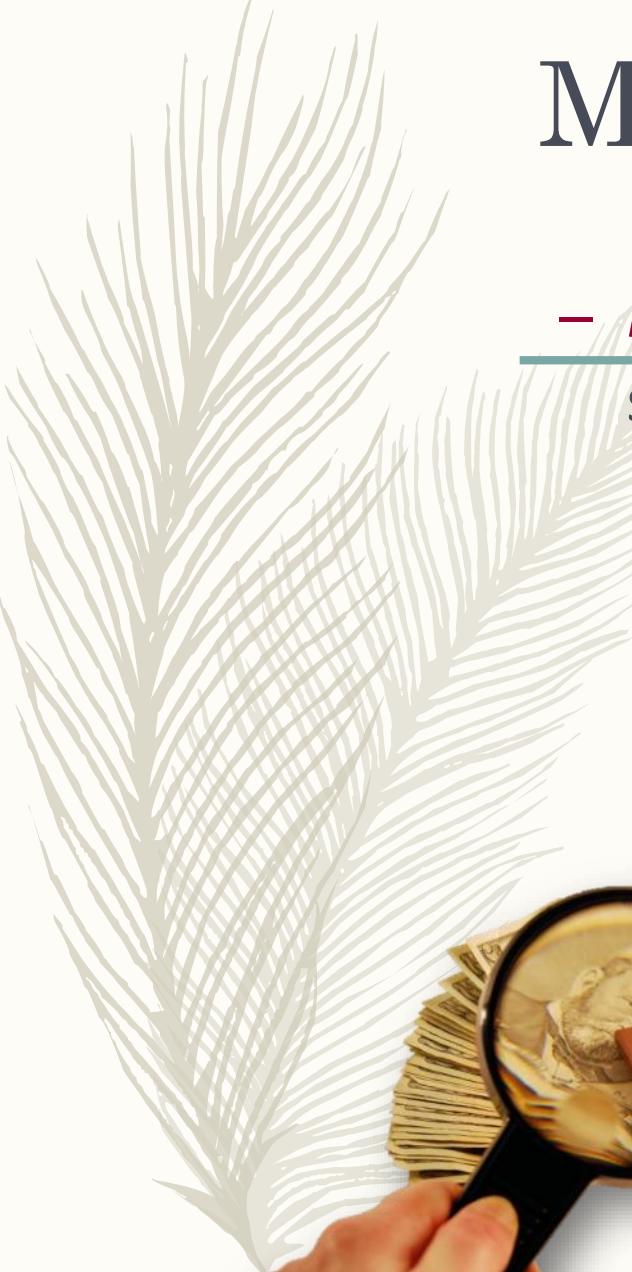


Some prisons use cigars as currency. It has some alternative, non-monetary use.

The island of Yap's currency

Commodity-backed money: a medium of exchange with **no intrinsic value** whose ultimate value is guaranteed by a promise that **it can be converted into valuable goods**.

Fiat money: money whose value derives entirely from its official status as a means of payment.



Measuring the Money Supply

- ***Monetary aggregate:*** an overall measure of the money supply.

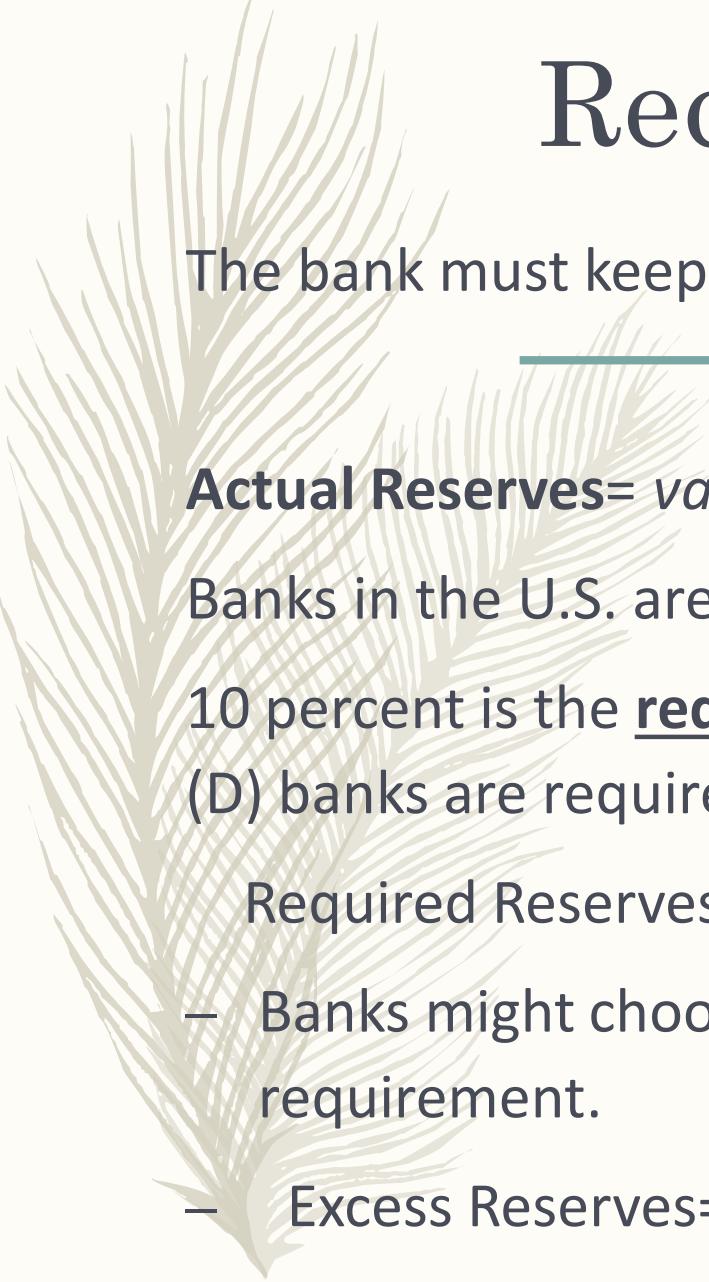
 1. ***The monetary base (MB): currency outstanding and total reserves at the Fed.***
 2. ***M1: currency outstanding and checkable deposits.***
 3. ***M2: M1 plus saving deposits, money market mutual funds, and small-time deposits.***





The role of Fed

- ❑ The Fed has direct control *only over the monetary base.*
- ❑ *The Fed can indirectly affect M1 and M2 by controlling the monetary base.*
- ❑ *M1 and M2 and can change independent of what the Fed does.*



Required and Excess Reserves

The bank must keep *some* cash available for its depositors;

Actual Reserves= *vault cash + deposits with the Federal Reserve.*

Banks in the U.S. are required to hold **required reserves**:

10 percent is the **required reserve ratio (RR)**: the minimum fraction of deposits (D) banks are required by law to keep as reserves.

Required Reserves= $RR*D$

- Banks might choose to hold **excess reserves**: reserves over the legal requirement.
- Excess Reserves= Actual Reserves-Required Reserves

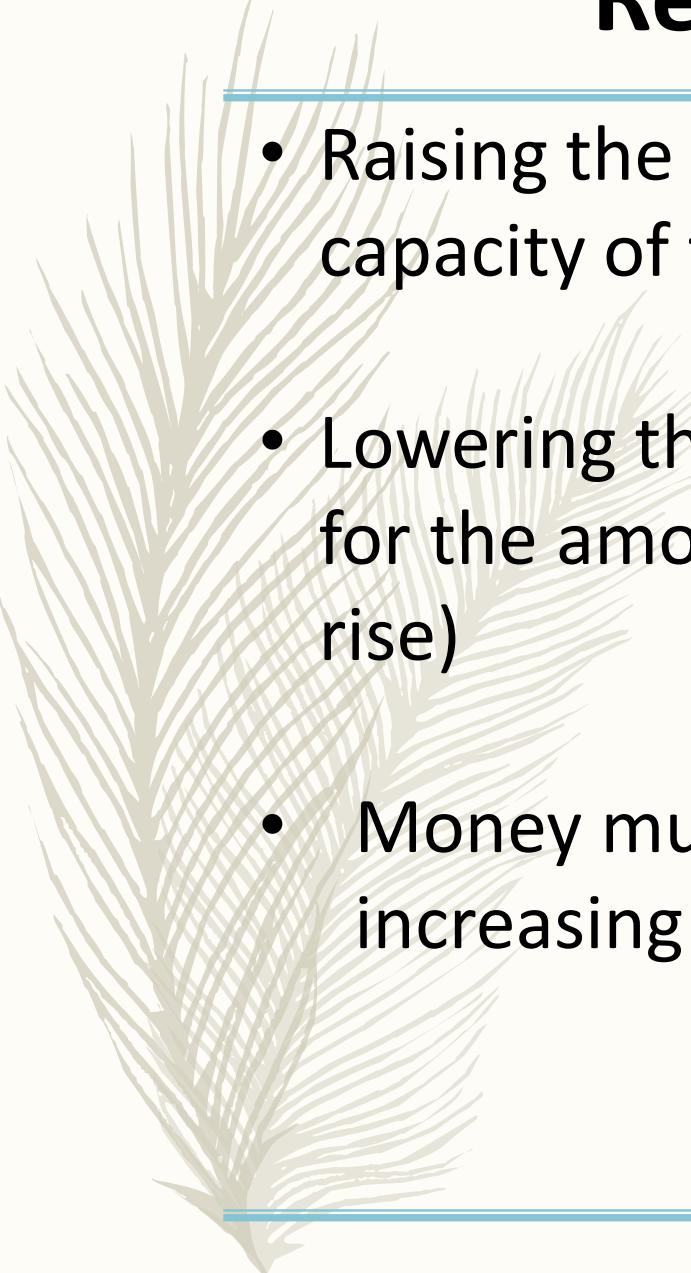


Instrument vs. tool

- Monetary policy instrument
 - Target level of federal funds rate
 - Target level of monetary aggregate
 - Target level of inflation
-
- Monetary Policy tools
 - Open Market Operations.
 - Discount Rate
 - Required reserve ratio
 - Interest on Bank Reserves

The Federal Funds Rate (FFR)

- Federal funds market is an overnight market.
- Interbank market: Banks borrow and lend reserves in this market to meet the reserve requirement
- Targeted federal funds rate: Fed's policy instrument
- Raise the target: contractionary
- Lower the target: expansionary



Reserve Requirement ratio

- Raising the reserve requirement limit the lending capacity of the banks (excess reserves fall)
 - Lowering the reserve requirement implies loose limits for the amount of lending by banks (excess reserves rise)
 - Money multiplier and money creating falls with increasing reserve requirement.
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Open Market Operations (OMOs)

- Most flexible and frequently used
- The goal is to have an impact on reserve balances
- Decided at the Federal Open Market Committee (FOMC) Meetings
- When the Fed buys anything (even socks), Bank reserves increase.
- Fed chooses government bonds to buy and sell daily.
- Open market purchase: expansionary
- Open market sale: contractionary



Monetary Policy implementation

- Fed will first look at the output and inflation gap data
- Then, decide to implement whether an expansionary or a contractionary policy
- Then, change the policy instrument (i.e. lower the target FFR for expansionary policies, vice versa)
- Then, conduct a corresponding OMOs to support the new target.
- Then, interest rate and money supply will change in the money market after the OMOs.
- As a result, the gap will be closed in the goods market.



Target Federal funds rate

- To boost the money supply (expansionary monetary policy), the Fed needs to lower the target federal funds rate below the market rate in the federal funds market.
- To contract the money supply (contractionary monetary policy), the Fed needs to raise the target federal funds rate above the market rate in the federal funds market.

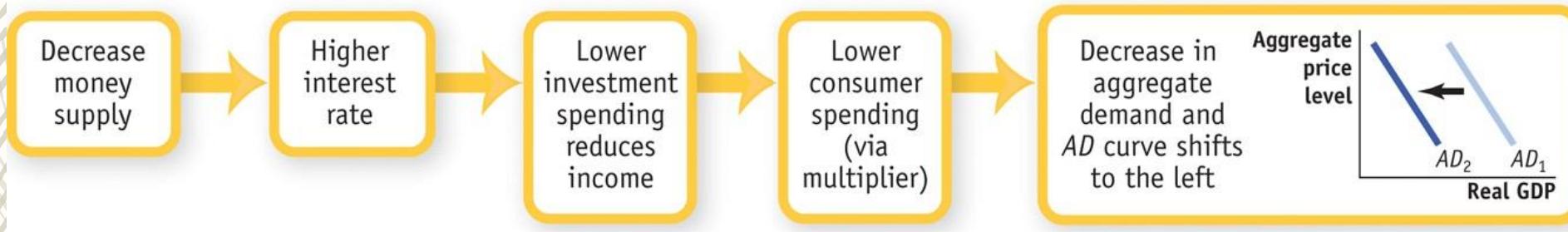
Monetary Base = Bank Reserves + Currency in Circulation

T-chart for the Fed

Assets	Liabilities
Other assets	Currency (C)
T-bills	Bank Reserves
Foreign Currency or other stuff	

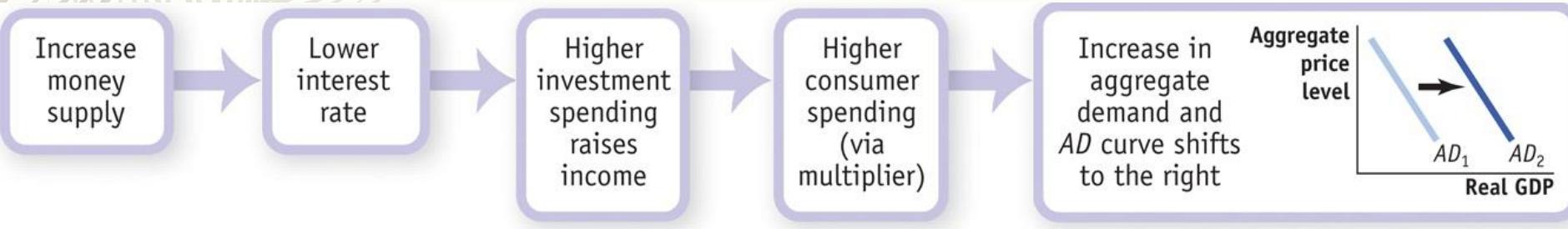
Monetary Policy and Aggregate Demand

- How the contractionary monetary policy cycle works:



Monetary Policy and Aggregate Demand

How the expansionary monetary policy cycle works:



Fiscal Policy

The spending and taxing policies used by Congress and the president

WHO?



Congress



President

Monetary Policy

The tools used by the Federal Open Market Committee to influence the availability of credit and the money supply

WHO?



- 7-Nonvoting members
- 4-Rotating votes-district presidents
- 1-New York Fed President
- 7-Board of Governors

Fiscal Policy Tools

Changes in government spending



Tax policy: Changes in tax rates and rules

Monetary Policy Tools

Open market operations Reserve requirement



Buy or sell



3% or 10% of
demand deposits

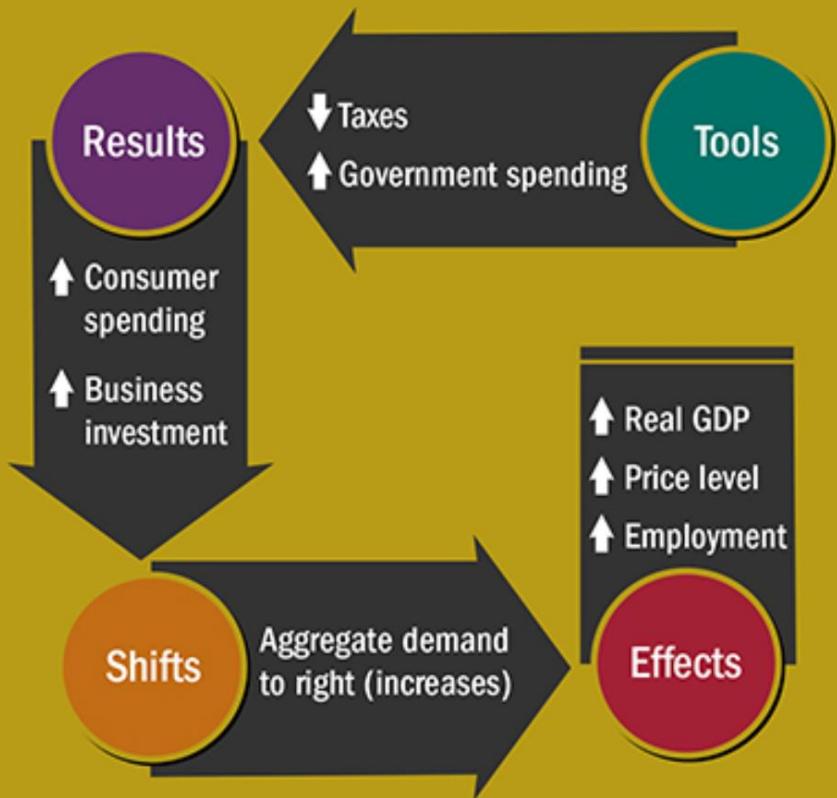


Interest on required
and excess reserves

Discount rate

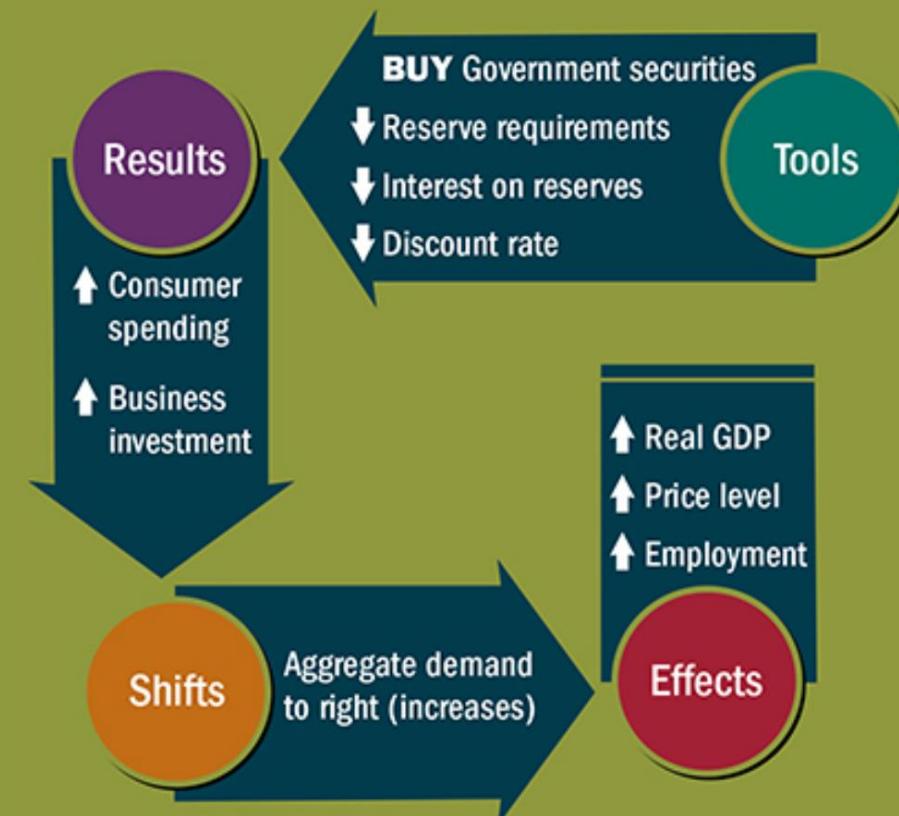
Expansionary Fiscal Policy

Tools used to stimulate the economy during a recession: Lowering taxes or increasing government spending.



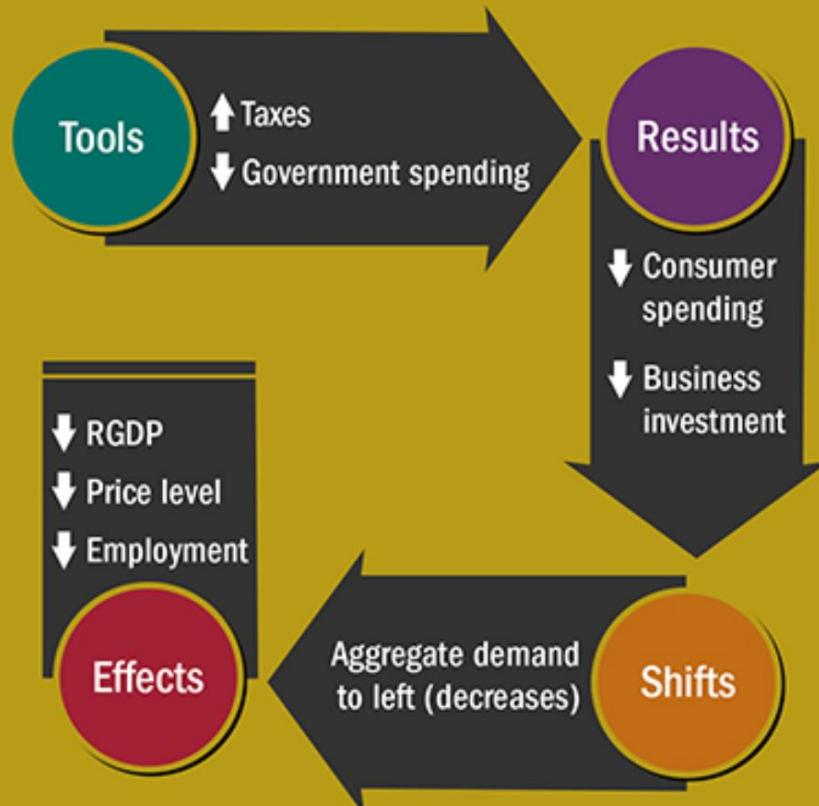
Expansionary Monetary Policy

Tools used to stimulate the economy during a recession: Buying government securities. Lowering the reserve requirement. Lowering the discount rate. Lowering interest paid on required and excess reserves.



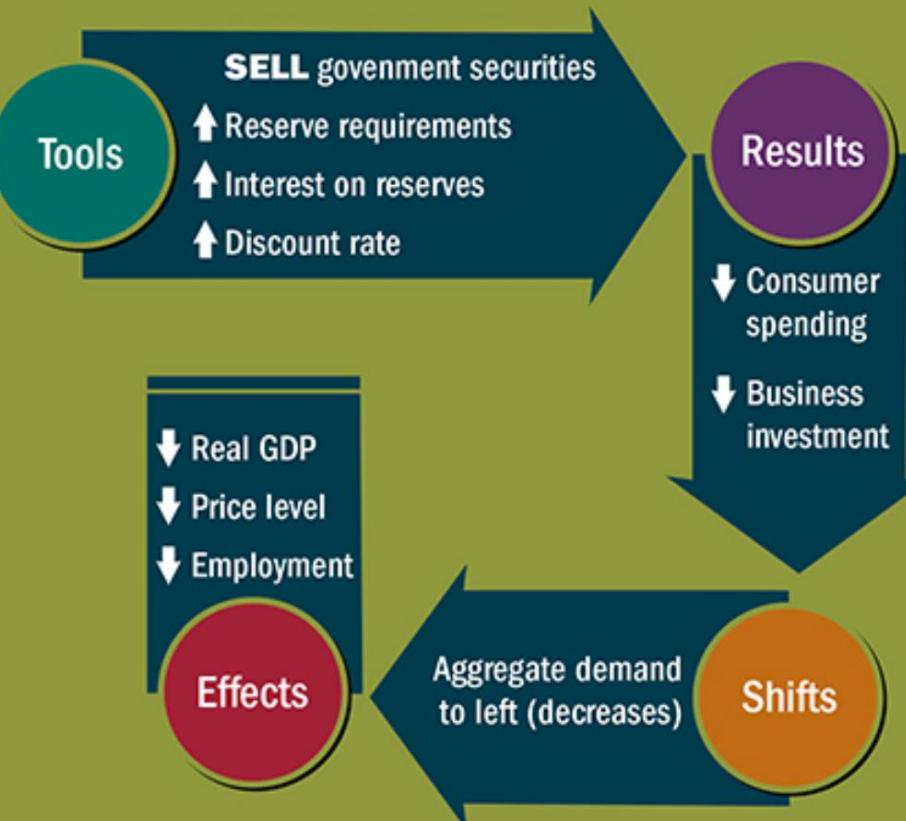
Contractionary Fiscal Policy

Tools used to stabilize the economy in times of inflation: Increasing taxes or lowering spending.



Contractionary Monetary Policy

Tools used to stabilize the economy in times of inflation: Selling government securities. Increasing reserve requirements. Increasing the discount rate. Increasing the interest paid on required and excess reserves.



Fiscal and Monetary Policy Goals

Influence and stabilize the economy. Promote price stability.
Promote maximum sustainable employment.

