

Unit 7

**Government's Role in the
Economy**

Government Spending

- Government spends money to provide goods & services to the public
 - Called *public sector* spending
- Some spending is mandatory
 - Government has obligated itself to pay these to recipients
 - Specific amounts are determined by what the government promised
 - Examples:
 - Social Security
 - Medicare
 - Welfare
 - Unemployment Compensation
 - Interest on the national debt
 - Health care, veterans benefits, & other programs

- Some spending is discretionary
 - Government chooses to spend on these programs
 - Specific amounts determined by government choice
 - Examples:
 - National Defense
 - Administration of justice
 - Education and training
 - Health care
 - Science, space, & technology
 - Other

What Government Spends Money On

- Government employee salaries
 - Workers for the government receive pay & benefits
- Payments to government contractors
 - Companies hired to perform specific tasks for the government are paid by the government
 - Example: road paving company
 - Employees of businesses are not employees of the government
 - Payment normally includes items purchased by those companies to carry out the contract
- Purchases of goods
 - Examples: cars purchased for government use

- ***Transfer payments***

- Payments to individuals or businesses that are not due to an economic activity (purchase of goods or services)

- Examples:

- Welfare (including food stamps)
- Medicaid
- Unemployment Insurance
- Subsidies paid to businesses

- Transfer payments ***redistribute*** wealth

- Money is taken from those who earned it and given to those who didn't earn it

Sources of Money for Government Spending

- **Taxes**
 - Mandatory payment to the government
- **Debt**
 - Borrowing money
 - From individuals
 - From other countries
 - From *itself*
 - “Tax on future generations”
 - Must collect taxes in the future just to pay back money borrowed now (including interest on that debt)

- Both sources have an opportunity cost to the economy
 - There is some economic activity that could have taken place in the economy but does not because the government took that money (TANSTAAFL)
 - What the revenue from taxes or debt is specifically spent on is easy to identify; what doesn't take place is not as easy to identify
 - There is still economic activity not taking place, even if there is no way to identify it
 - Politicians can easily point to what they do spend money on and avoid the discussion of what didn't happen in the economy because of the taxation & borrowing since it is so difficult to identify

- Government should evaluate the amount it taxes away or borrows from the private sector
 - What are the benefits to society from the goods & services (or transfer payments) it's providing?
 - What is the cost to the economy of the economic activity not happening because the private sector has less money available for investment and spending because:
 1. It was taxed away
 2. It was taken out of the private sector because they invested it by loaning it to the government
 - Do the benefits outweigh the costs?

Government Taxation

- **Individual Income Taxes**

- Tax on earnings

- Money earned in a paycheck working for someone else

- Tax on earned interest

- Money earned on savings & investments that pay you interest

- Savings accounts

- Bonds

- Tax on dividends

- Money paid to you by company whose stock you own

- Tax on capital gains

- Money you make when you sell something for a price higher than what you bought it for

- **Payroll Taxes**

- **Social Security**

- 6.2% of Social Security wages (up to \$127,200 for 2017) of employee wage paid by *employee*
 - Matching amount (6.2% of Social Security Wages) paid by *employer*

- **Medicare**

- 1.45% of employee wage paid by *employee*
 - Matching 1.45% of employee wage paid by *employer*

- **Unemployment Insurance**

- 6.2% of first \$7,000 of each employee's wage each year is paid to federal and state government by *employer*

- **Corporate Income Taxes**

- Taxes paid by corporations on their earnings
- Taxes are an expense for the corporation, so they are normally factored into the price they charge for their products
 - Consumers ultimately “pay” these taxes through higher prices for the products they buy

- **Excise Taxes**

- Taxes on specific goods & services

- Charged by government to the seller

- Paid by consumer through higher prices for the product

- Often imposed on users of specific products to pay for specific services

- Fuel = help fund road construction & repair, environmental protection, etc.

- Phone service = help fund phone service for those who can't afford it

- Airport = help fund Dept of Homeland Security

- Sometimes imposed if a government wants to regulate the product and/or discourage its use

- Alcohol

- Tobacco

- **Estate Taxes**

- Imposed against the value of property inherited by the descendants of someone who has died

- **Gift Taxes**

- Imposed against the recipient of a high-valued gift
 - Lottery winners
 - Prize winners (raffles, etc.).
 - Gifts to relatives by folks seeking to avoid the estate tax when they die

- **Other Taxes**

- Sales Tax (state/local)
- Meals Tax (local)
- Hotel Occupancy Tax (local)
- Others

Deficit vs. Surplus

- ***Deficit*** – a situation in which the amount the government spends in a year exceeds the amount it collects in taxes
 - This is the amount the government must borrow in a given year to pay for its spending
- ***Surplus*** – a situation in which the amount the government collects in a year exceeds the amount it spends
 - If the government collects more in a year than it spends, then it can take that surplus money and pay off any existing debt

National Debt

- ***National Debt*** – the total cumulative amount of money the government currently owes based on borrowing it has done each year
 - This is the amount the government must pay back to those from whom it borrows
- Most of national debt is held by the public
 - Individuals, businesses, other countries, etc. have bought “securities” from the US treasury (bonds, etc.)

- Some of the national debt is held by the government
 - The government collects money for specific purposes that goes into a Trust Fund
 - Social Security
 - Highway
 - Other
 - If the government collects more than it must pay out in that year from that trust fund, the government then loans itself that money to use for other things
 - The government sells itself one of its own bonds (referred to by the Treasury as “investing” the trust fund)
 - The bond now shows on the books of the trust fund as an asset (IOU not cash)
 - The Treasury then spends that borrowed money on something else

- Government must pay ***interest*** on the debt it owes to those from whom it borrows
 - This is money in addition to the amount that was originally borrowed paid to the lender as the incentive for lending the money
- Even if the government balances its budget (no deficit), it will have no effect on the overall national debt
 - It just means that the government did not borrow more money that year
 - In order to pay down the debt, the government must run a surplus (and it must use the surplus to pay off the debt, not increase future spending)

Fiscal Policy

- Government's use of taxation and spending in order to affect what is happening in the economy
 - Tax rates affect how much disposable income people have available for spending
 - The higher the tax rate, the less a person will have available to spend as disposable income
 - Levels of government spending can influence GDP & unemployment
 - Spending by government is one of the components of the GDP (Unit 6)

Expansionary Fiscal Policy

- Government actions that are intended to promote economic activity
 - Lower taxes
 - Increase government spending
- Intended to be used during periods of poor economic growth (GDP growth < 2%, including contraction)

Contractionary Fiscal Policy

- Government actions that are intended to inhibit economic activity
 - Raise taxes
 - Reduce government spending
- Intended to be used during periods of runaway economic growth (GDP growth >4%)

Demand Side Economics – John Maynard Keynes

- Early 20th-century economist
- Ideas became popular during the Great Depression of the 1930s
- Asserted that the government could “jump-start” a stalled economy through spending, even if the spending was on borrowed money
 - Increase in economic activity caused by government spending would more than offset the need to borrow, and when economy was working efficiently again, the debt could be paid off

- Economy is driven by demand and ruled by emotion
 - Referred to as the “animal spirits”
- The government, through its fiscal policy, can control these “animal spirits”
 - If the “animal spirits” are afraid to spend & invest because of economic worries, government spending (increases in the government’s “demand”) that boosts economic activity can overcome this fear
 - Referred to as “priming the pump”
 - Government spending gets the economy started again, at which point the economic activity starts building on itself

Supply Side Economics – Milton Friedman

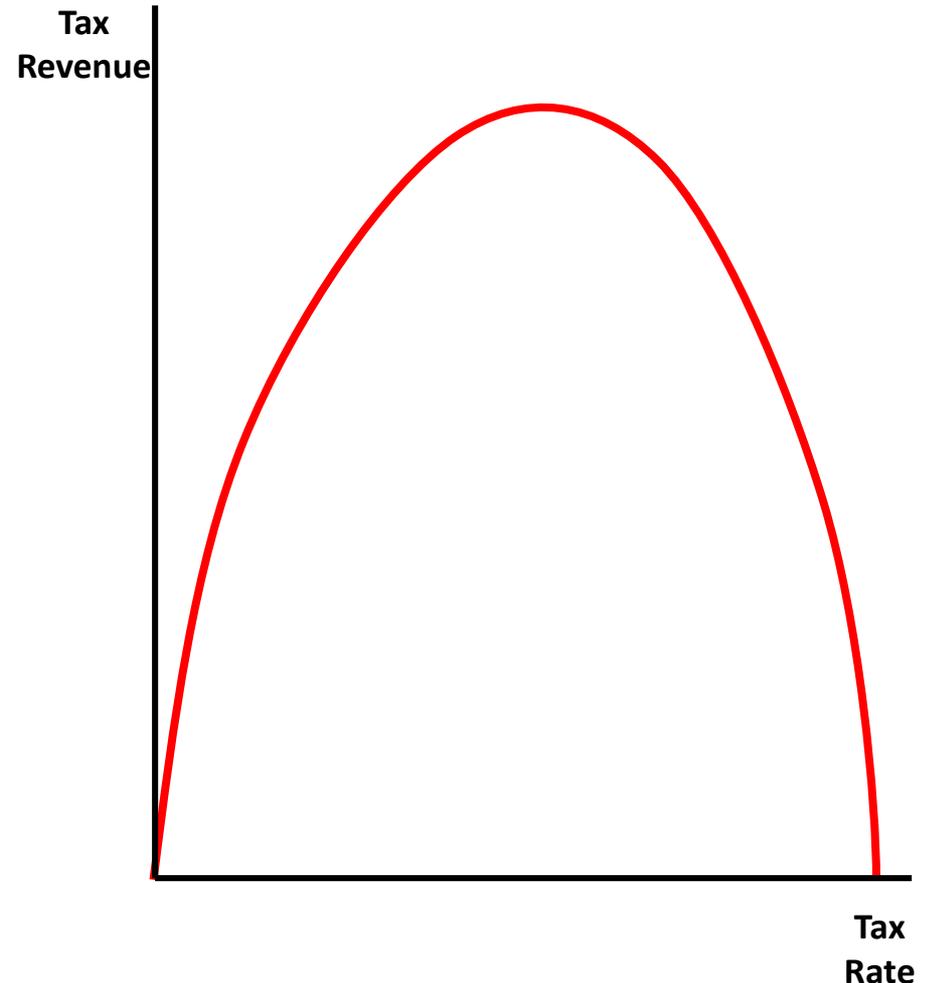
- Focus is on producers in the economy
- Primary concern is with the incentives (or disincentives) created through the government's tax and regulatory structure
 - High tax rates and costly regulations create disincentives for investment & hiring
 - Capital is a scarce resource that has alternative uses
 - If investing in a business or hiring won't return a profit that is better than a different type of investment, or will result in a loss, the investor choose the alternative investment over the business investing/hiring in itself

- Historically, high tax rates have resulted in investors shifting money away from business (capital) investment and hiring into types of investments whose profits will not be taxed
 - Usually tax-free municipal bonds (money borrowed by cities, counties, etc. for which the interest paid is tax-exempt)
- According to supply-side economics, lower tax rates and less costly regulations will remove this disincentive
 - The promise of lower tax rates on future profits incentivizes the business to do capital investment & hire more employees

- The reduced costs of production due to lower regulatory costs make expansion and hiring more appealing now
- Businesses expand & hire more employees
- Economic activity increases
- GDP starts to increase more rapidly
- Additional benefit is that government tax revenues actually increase, not decrease, due to the increased economic activity that occurs

Laffer Curve

- Depicts effect tax rates have on overall tax collections (revenues) by the government
- The marginal increase in tax revenues continues to decrease as tax rates are pushed higher
 - Rates eventually reach a point (peak on curve) in which any additional increase actually results in less tax revenue



Supply-Side Economics is *NOT* “Trickle-Down Economics”

- Some try to incorrectly characterize supply-side economics in this manner:
 - Cut tax rates on the rich only
 - Rich now have more money to spend on things
 - The rich will spend that money on more things
 - This money will then “trickle down” to poorer people who are the workers who make the things the rich people buy or are the people who sell the rich the things the rich people buy.

- This incorrect characterization attempts to put a demand-based description on what is not demand-based
 - *“Give the rich more money so they demand more, and their spending will ultimately ‘trickle down’ to the rest of us”*
- This is **not** what supply-side economics is
 - In supply-side economics, businesses invest **now** in anticipation of that investment returning **future** earnings that will be taxed at a lower rate
 - Additional capital investment **now**
 - Additional workers hired **now**
 - Additional increases in inventories **now**
 - Profits made off this increased economic activity that may be received (not guaranteed) in the **future** is the incentive to do all this now

The Federal Reserve (“The Fed”)

- Central banking system for the US
 - Created by the Federal Reserve Act in 1913
 - Set up to operate independently of the President, Congress, & the Supreme Court
- What makes up the Federal Reserve System
 - Board of Governors
 - Federal Reserve Banks
 - Member Banks
 - Federal Open Market Committee
 - Advisory Councils

Board of Governors ("Federal Reserve Board")

- Located in Washington, D.C.
- National component for the Federal Reserve System
- Structure:
 - 7 members
 - Appointed by the President
 - Approved by the Senate
 - Members serve 14-year staggered terms
 - Once a member serves a full 1-year term, he/she cannot be reappointed

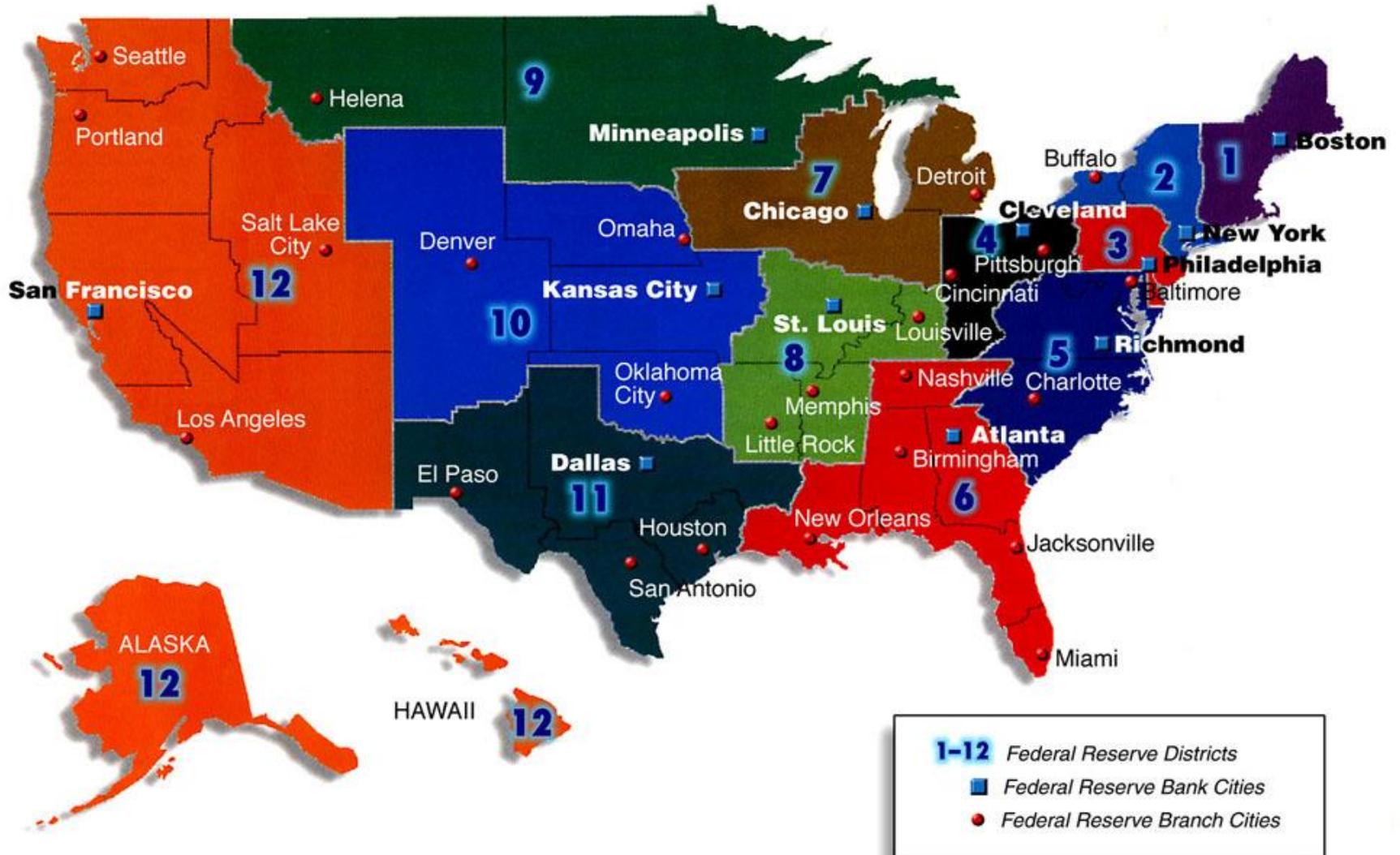
- Functions

- Oversee operations of the Federal Reserve Banks
- Exercise broad supervisory control over the financial services industry
- Oversee nation's payments system
- Administer certain consumer protection regulations
- Analyze current domestic & international financial conditions
- Implements monetary policy for the United States

Federal Reserve Banks

- The operating arm of the Federal Reserve System
- The “Bankers’ banks”
- Structure
 - 12 main Federal Reserve Banks
 - 25 branches
 - Each Federal Reserve Bank is responsible for a Federal Reserve District
 - Each main Bank or Branch serves the Member Banks in a geographic area within the District

Federal Reserve Banks, Branches, & Districts



- Functions

- Serve as bank for the US Treasury

- Hold deposits for US government

- Make payments on checks written by US government

- Loan US government money

- Operates the nationwide payments system

- Provide needed coins & currency for their Member Banks

- Receive deposits from their Member Banks

- Supervise & regulate their Member Banks

- Collect economic & other information for their District to provide to the Board of Governors

Member Banks

- Only 38% of the commercial banks in the US are members of the Federal Reserve System (not *all* banks)
- “National” banks (any bank with “national” in its name) must be a member
- State-chartered banks may also join

Federal Open Market Committee (FOMC)

- The monetary policymaking body of the Fed
- Structure
 - 12 Members
 - Board of Governors (7 people)
 - President of the New York Federal Reserve Bank
 - Presidents of 4 other Federal Reserve Banks (rotating)
- Functions
 - Control nation's money supply
 - Implement monetary policy to:
 - Promote economic growth
 - Promote stable prices

Advisory Councils

- Federal Advisory Council
- Consumer Advisory Council
- Thrift Institutions Advisory Council
- Purpose:
 - Research and analyze economic conditions and other information related to their purpose
 - Make recommendations to the Board of Governors concerning policy
 - No authority or power; just an advisory role

Monetary Policy

- Actions taken by the Federal Reserve to control the money supply in order to:
 - Promote maximum employment
 - Promote stable prices
 - Promote moderate long-term interest rates
- These actions are intended to provide the supporting conditions for economic growth

How Control of the Money Supply Affects the Economy

1. The amount of money in the money supply determines how much money is available to be used to purchase the goods & services in the economy
 - Too much money chasing too few goods & services results in inflation
2. The amount of money (and the cost of money) in the money supply determines how much money is available for borrowing (and how much borrowing it would cost)
 - More money at cheaper interest rates generally results in more borrowing

Monetary Policy Tool #1: Open Market Operations – Buying & Selling Bonds

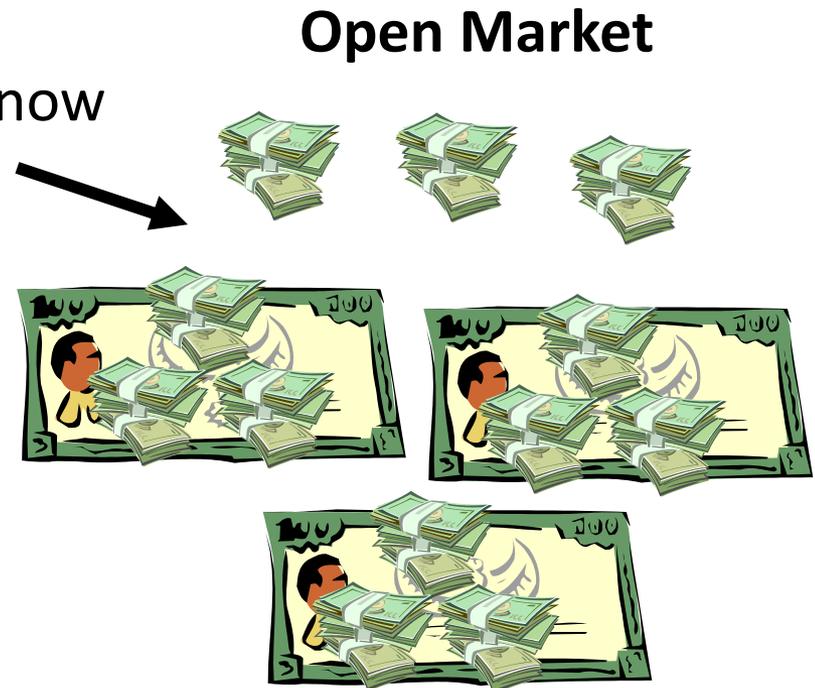
- The primary tool used by the Federal Reserve to control the money supply
- Fed's Open Market Committee buys & sells bonds at the New York Federal Reserve Bank

- Fed increases the money supply by **buying** bonds back from the open market
 - Fed takes bonds out of the open market
 - Fed pays bondholders money that now begins to circulate in the open market

Federal Reserve



More money now
in circulation

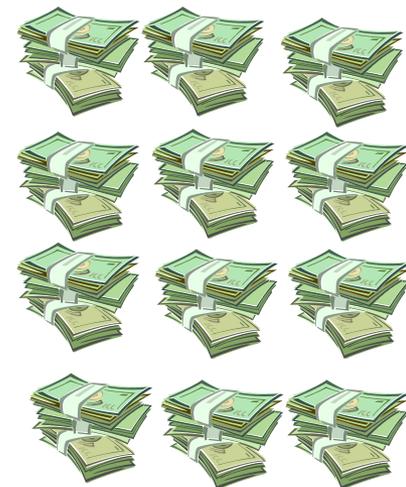


- Fed decreases the money supply by ***selling*** bonds to investors on the open market
 - Fed takes money from bond buyers and removes it from circulation in the open market
 - Bond buyers now hold bonds

Federal Reserve



Open Market



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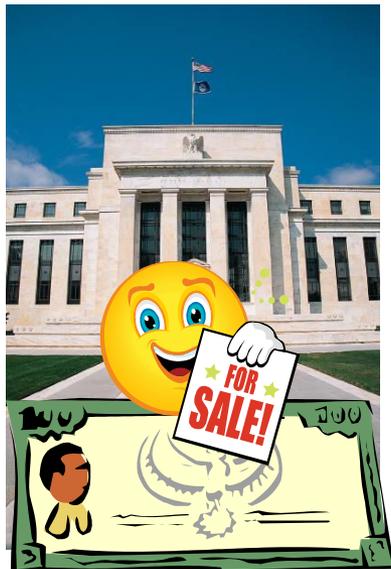


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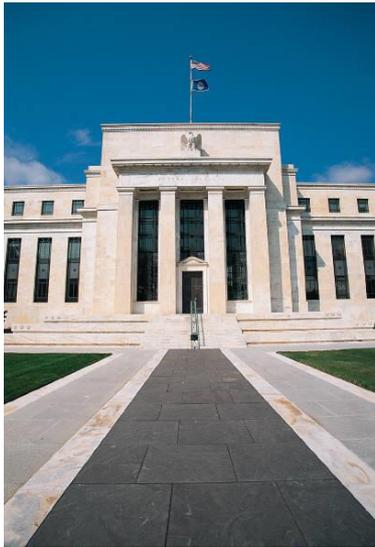


Open Market



- Fed decreases the money supply by ***selling*** bonds to investors on the open market
 - Fed takes money from bond buyers and removes it from circulation in the open market
 - Bond buyers now hold bonds

Federal Reserve



Less money now
in circulation



Open Market



Monetary Policy Tool #2: The Discount Rate

- ***Discount Rate*** – the interest rate banks pay to the Fed on loans they receive from the Fed
 - Usually only overnight loans
- Discount rate is the key rate on which all other interest rates in the financial sector are based
 - Mortgages
 - Car loans
 - Credit card rates
 - Etc.

- Low interest rates tend to encourage borrowing
 - Cost of loan (interest) is low, and monthly payment is relatively low (compared to higher interest rate)
 - Easier for business to repay loan
 - Easier for consumer to repay loan

- Businesses & consumers tend to be more likely to borrow
 - More confident they can afford to pay it back

Example: \$250,000 loan (home loan, business expansion, etc.)

	Interest Rate	Monthly Payment	
Loan A	4.5%	\$1,266.71	<i>Loan A's lower monthly payment will be more affordable.</i>
Loan B	7.5%	\$1,748.04	

- Businesses & consumers that do borrow tend to borrow a larger amount
 - Can purchase more for a given monthly payment

Example: Desired monthly payment on loan = \$1,500.00

	Interest Rate	Amount Borrowed	
Loan A	4.5%	\$296,041.74	<i>With a lower interest rate, you can borrow more based on how much you want for a monthly payment.</i>
Loan B	7.5%	\$214,526.44	

- High interest rates tend to discourage borrowing
 - Cost of loan (interest) is high, and monthly payment is relatively high (compared to lower interest rate)
 - Harder for business to repay loan
 - Harder for consumer to repay loan
 - Businesses & consumers tend to be less likely to borrow
 - Less confident they can afford to pay it back
 - Businesses & consumers that do borrow tend to borrow a smaller amount
 - Can purchase less for a given monthly payment

Monetary Policy Tool #3: The Reserve Requirement

- ***Reserve Requirement*** – the percentage of customer deposits that banks are required to have on hand or on deposit at their Federal Reserve Bank Branch
 - The more money that banks are required to keep in their vaults or on deposit, the less that is available in circulation for use with loans
- Reserve requirement controls how much money is “created” with new money entering the money supply

- When banks receive a new deposit, they:
 1. Keep some
 2. Lend the rest out
- Depositors accounts' show their deposit amount, which is available for them to use
 - Not all of that deposit money is there, since most has been lent out
 - Banks (and the Fed) count on not every depositor needing every dollar of their deposit at a given time

- The money that is lent out is spent/invested, and the recipient of that spending/investing deposits it in their bank
 - Same thing (some kept, rest lent) happens at that bank.
- As parts of that initial amount continue to get lent out, spent/invested, and deposited in banks, money is “created”
 - Money “created” only shows in the balances of those accounts, but is available for spending
 - How much is “created” is determined by the Reserve Requirement

- **Deposit Expansion Multiplier (DEM)**

- The total number of dollars “created” for each actual dollar that originally enters the money supply

- How to calculate:

$$\text{Deposit Expansion Multiplier (DEM)} = \frac{1}{\text{Reserve Requirement (RR)}}$$

If RR = 10%:

$$= \frac{1}{.10}$$

$$= 10$$

\$10 are “created” for every \$1 initially added to the money supply

- Reserve Requirement is rarely changed
 - Banks need to be able to rely on how much they will be required to keep on hand or on deposit with the Federal Reserve
 - An increase would cause banks to scramble to get additional money to cover the increased amount required to be kept on hand
 - If a bank could not come up with the needed reserves quickly enough, it could be declared insolvent and shut down

“Loose” Monetary Policy

- Intent: expand the money supply
 - Encourage economic growth
 - Reduce unemployment
- How the “tools” can be used:
 - Buy bonds
 - Adds money to the money supply in the open market
 - Lower the discount rate
 - Encourages borrowing (likelihood, amounts)
 - Decrease reserve requirement (rarely, if ever, used)
 - Increases amount of deposits available for lending

“Tight” Monetary Policy

- Intent: to slow the growth of, or reduce, the money supply
 - Slow excessively high GDP growth
 - Control inflation
- How the “tools” can be used:
 - Sell bonds
 - Removes money from the money supply in the open market
 - Increase the discount rate
 - Discourages borrowing (likelihood, amounts)
 - Increase reserve requirement (rarely, if ever, used)
 - Decreases amount of deposits available for lending

Additional Government Role: Protecting Property Rights

- Property rights protected by the US government
 - The right to exclusive use of their property
 - The right to legal protection against trespassers or abusers of their property
 - The right to sell or trade their property
- Legal system protects those property rights
 - Criminal code
 - Civil code (lawsuits)

- Exception to property rights: ***eminent domain***
 - The power of the government to force the transfer of property from a private owner to the government for a public purpose
 - Originates in the 5th Amendment to the US Constitution:
“No person shall be...deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.”
 - Originally interpreted by the Supreme Court to allow property to be taken to be used for public uses:
 - Schools
 - Roads
 - Parks
 - Etc.

– 2005 US Supreme Court case *Kelo vs. City of New London* reinterpreted this to allow governments to take property using eminent domain for public benefit

- In this case, the property was taken from residents of a run-down section of New London, CT, so it could in turn be sold by the city to a private developer so the land could be developed into something that would benefit the local economy (provide jobs, more tax revenues, etc.)
 - Transfer was from one private owner to another private owner
- Court did leave open the possibility for states to pass amendments to their state constitutions to restrict use of eminent domain in any manner it wishes
 - Virginia passed amendment on Nov 2012 ballot to restrict eminent domain from being used for economic development





Government Regulates to Maintain Competition in the Markets

- Two main agencies:
 - Anti-Trust Division of the Justice Department
 - Federal Trade Commission (FTC)
- Illegal practices:
 - ***Price Fixing***
 - Competitors agree on a price for a good or service
 - Prevents competitors from competing on identical products using price

– ***Bid Rigging***

- Competitors for government contracts agree in advance who will win that bid, and that “lowest bid” is still above what it would have been if they would have competed
- Competitors agree to “take turns” on who submits the “lowest bid” for different contracts that come up so all benefit
- “Lowest bid” often is above what it would be if they actually competed, costing the government more money

– ***Market Division***

- Competitors agree to divide a market amongst themselves
 - Each sells to separate set of customers
 - Each gets certain geographic area and competitors agree not to sell in that area
- Competitors not actually competing directly against each other, and prices will be higher for customers as a result

Government Regulates to Protect Consumers, Savers, & Investors

- Protecting consumers
 - Wide range of government agencies that oversee regulation of various aspects of the economy
 - Consumer products
 - The food supply
 - Water and air (the environment)
 - Medicines
 - Transportation
 - Others

- Protecting savers & investors
 - Federal Reserve regulates the banking system
 - Federal Deposit Insurance Corporation (FDIC) protects bank deposits up to \$250,000 per person per bank
 - Securities & Exchange Commission (SEC) regulates the financial markets (stock market, bond market, etc.)
 - Commodities & Futures Trading Commission (CFTC) regulates commodities futures & options
 - Specific type of investment that deals with speculation on the future price of commodities (oil, wheat, gold, etc.)

- **Commodity** – an item that comes out of the ground that has marketable value
 - Oil/natural gas/coal/etc.
 - Wheat/corn/soybeans/cotton/etc.
 - Oranges/tomatoes/apples/etc.
 - Gold/silver/platinum/etc.
- Commodity *future*
 - Technically a futures **contract**
 - A contract to buy a specified amount of a commodity at a specified date in the future for a specified price
 - Investors buy futures for a commodity if they think the price at the time the contract must be executed will be higher
 - » They have a contract to purchase that commodity at the lower price. They make that purchase then turn around and sell the commodity at the higher price, making a profit
 - » If the price at the time the contract must be executed is lower than the contract price, they still must buy the commodity at the higher price and can only sell at the lower price, losing money

- Commodity future *option*
 - Technically a futures *option* contract
 - The contract is an option to buy a specific amount of a commodity on a specified date in the future for a specified price
 - » Not an actual commitment to buy on that future date
 - » If you have the option contract, you have the choice to “exercise that option” or not
 - Options contract cheaper than a futures contract
 - » You are basically buying the privilege of having the ability to buy that commodity at the specified date, not the actual commodity itself
 - If the actual price of the commodity is higher at that future date than the price specified in the contract, you would “exercise the option”, forcing the other party of the contract to sell to you at the lower price.
 - » You then turn around and sell the commodity at the higher current market price, and the profit you make is the sale price minus what you purchased the commodity at, plus the cost of the option contract
 - If the price of the commodity is lower on that future date than the one you specified in the contract, you don’t exercise the option, and the only money you lose is the money you spent on the option contract

Government Regulates to Protect Workers

- US Department of Labor (DOL) is primary agency that safeguards the interests of workers
 - Workers get wages due them
 - Workplaces are free from discrimination
 - Unemployment insurance
 - Protecting workers' physical well-being

Perils of Government Regulation

- **Over-Regulation**

- Regulation can be expensive, both for the regulatory agencies and for businesses that must comply with the rulings of those agencies
 - The US Small Business Administration (SBA) estimated 2010 compliance costs at \$1.75 trillion for businesses alone (not including the actual public costs in funding those agencies).
- Costs become a hidden “tax” on consumers
 - Costs are passed on to consumers in the form of higher prices by producers because of the regulatory requirements
- Sometimes regulations are so detailed and complex that they actually discourage economic activity
 - May be too expensive and difficult to comply with regulation, so business chooses not to do it

- **Costs vs. Benefits**

- Regulation has obviously benefited society

- Cleaner water
 - Cleaner air
 - Safer workplaces

- The question becomes when is it too much

- When do the costs of the regulation outweigh the benefits received from the regulation

- **Regulatory Capture**

- Government hires individuals from businesses in the industry to become the regulators for the businesses in that industry
 - Where better to get experts on that industry than those that actually have experience working in the industry?
- Businesses hire individuals who worked for the government regulating their industry
 - Where better to get experts on how to navigate the “regulatory waters” than someone who was a regulator of that industry
- The result may be that the regulators act in the best interest of the existing businesses in that industry and not the public at large
 - Create regulations that can be handled by the bigger firms but are too expensive or difficult for smaller or new firms to comply, driving them out of the industry

Externalities

- Spillover effects from production & consumption
- Costs or benefits that affect someone other than the producer or consumer of a good or service
- Can be positive
 - Ex: immunizations
 - By you getting immunized, others are protected from a disease being spread by you

- Can be negative
 - Ex: second-hand smoke
 - Studies show a link between breathing second-hand smoke and lung cancer
 - There is a possibility you could get lung cancer from smoking, even if you don't actually smoke
- Government can promote positive externalities
 - ***Subsidy*** – providing economic incentive to engage in a certain activity
 - Money
 - Tax break
 - Lower interest rates on loans that what would otherwise be higher if obtained in the private market
 - Loan guarantee

– ***Public Provision***

- Government provides the service for you
 - Public education
 - Air Traffic Control
 - Etc.

• Government can limit negative externalities

– Command-and-control policies

- Congress and/or regulatory agencies issue laws or regulations restricting the negative externalities
 - Ex: pollution control standards from the EPA

– Market-based policies

- Corrective tax
 - Creators of negative externalities pay a tax on what they're doing
 - Ex: taxes on cigarettes to pay for health care costs for others associated with second-hand smoke

Public Goods

- ***Public good*** – An item, once provided, is available to all without further opportunity cost
 - Those who don't pay for good cannot be excluded from using it
- “Free rider” problem
 - Free rider gets benefits without paying the costs
 - Private markets won't provide a good that people don't pay for
- Examples:
 - Roads
 - Highways
 - Bridges
 - Fire protection
 - Police
 - National defense

- Government will provide those public goods it determines it is in the country's best interest to provide
 - They will use tax revenue to pay for those public goods
 - Tax may be direct tax or fee paid by users of the public good
 - Examples: national parks, toll roads/bridges, etc.
 - Payment for public goods may come from general taxes paid by all when all are perceived to benefit
 - Example: public schools paid for by all through property taxes (local), and income taxes (federal & state)