The Power of Macroeconomics

Learn The Principles of Macroeconomics

In a Real World Setting!

Lecture One:

An Overview of Modern Macroeconomics

Presented By:
Professor Peter Navarro
University of California-Irvine

Macroeconomics In Our Personal Lives

- Macroeconomics helps you make important decisions:
  - Is it a good time to switch jobs?
  - Should you ask for a raise?
  - Go buy that new house now or wait?
  - Get a fixed or variable rate mortgage?

Macroeconomics in Our Professional Lives

- Macroeconomics helps you make critical business decisions!
  - How much to manufacture?
  - Inventory levels?
  - Invest in new plant and equipment?
  - Expand into foreign markets?
  - Downsize my firm?

Seeing Patterns and Trends

Jim Wells' Decision

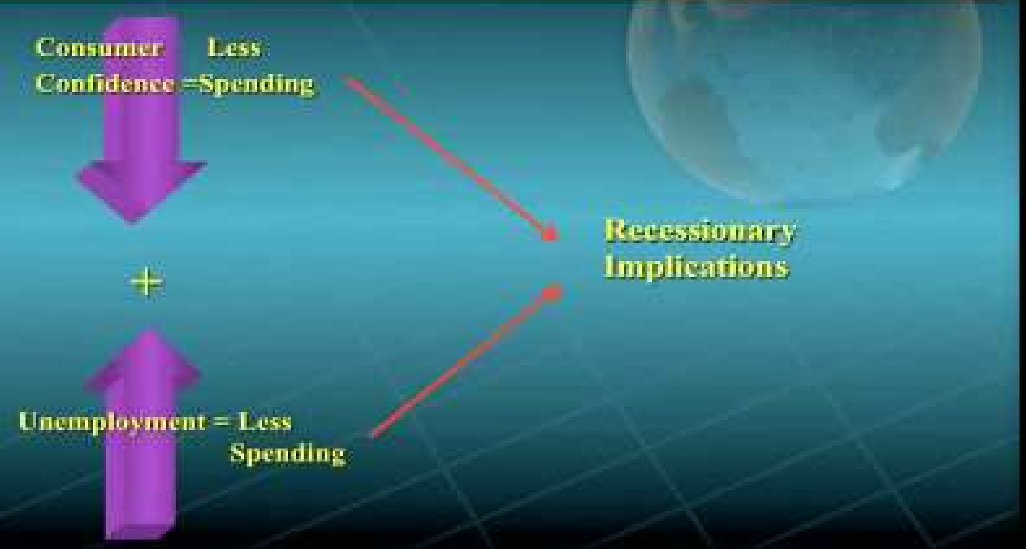
- Owned a manufacturing business that made high precision components for computer games.
- Jim had to decide how many components to produce for the upcoming holiday season.
- Every year, he had doubled his production.
- Because he never had trouble moving inventory, Jim decided to do the same thing again.
- It meant taking out a big short term loan to finance the expansion.

Ignorance is Costly – Not Bliss

- Jim never took a course in the principles of macroeconomics.
- His lack of knowledge would be very costly.
- He missed some significant danger signs.

Look Out Jim! Recession Ahead!

More Warning Signs



Globalization Strikes!

Bankruptcy Looms

- Jim got caught with inventories up and pants down.
- By October, a foreign competitor had taken over half of a market already shrinking fast from the onset of a recession.

Jim's Company – A Turkey By Thanksgiving

- By Thanksgiving, Jim was sitting on a huge inventory that he couldn't give away.
- By December he was unable to pay a huge loan that wouldn't go away.
- By June, Jim's company was bankrupt.

Jim Meets Teresa

- Today, Jim works as a consultant for one of his old Japanese competitors.
- At night, Jim studies macroeconomics.
- He sits in the front row of his class right next to Teresa Watson.

Teresa's American Dream

- A single mother with a dream to own her own home.
- Marketing director for a major corporation.
- With a good salary, she saved up to put a down payment on a new home.

Teresa's Choice – and Gamble!

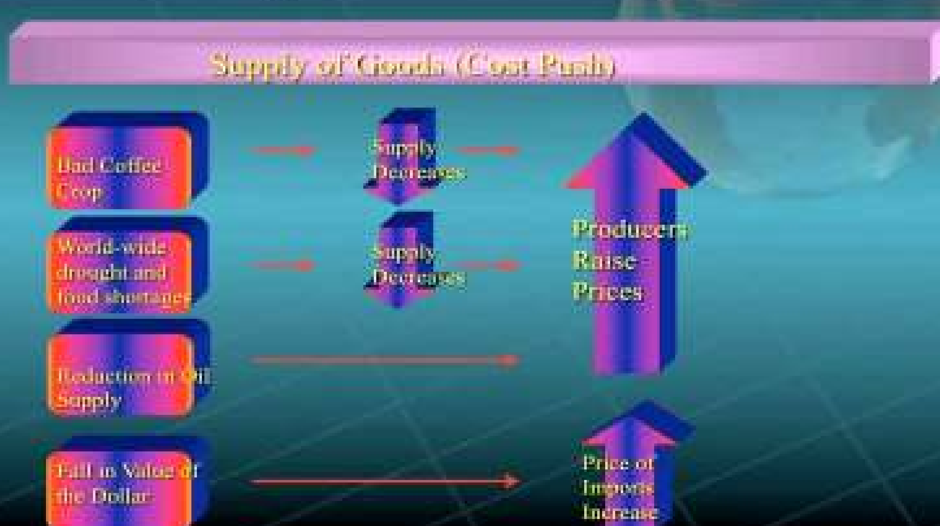
- A modest condo near work or a big, more expensive dream home out in the suburbs?
- Buying her dream home meant taking a variable rate mortgage two points below a fixed rate mortgage.
- Her variable mortgage payments would be much lower than a fixed rate mortgage – but only if inflation and interest rates stayed low!

Some Warning Signs

- Teresa felt a little nervous about choosing the variable rate -- but the mortgage banker told her not to worry.
- Rates had been stable so "it shouldn't be a problem.
- However, Teresa failed to see numerous warning signs of growing inflationary pressures.

Inflationary Pressures

Inflationary Pressures



Disaster Strikes

- Interest rates climbed into double digits.
- Teresa couldn't afford her variable rate mortgage payments.
- Rising interest rates plunged the economy into a recession
- The real estate market crashed!
- Teresa was forced to sell her dream home for much less than she bought it for.
- She lost every cent of her equity.

The Power of Macroeconomics in Real Life

- Jim and Teresa could have avoided their hardships with a solid grasp of macroeconomic principles!
  - Jim could have halved his production rather than doubling it and stayed in business.
  - Teresa could have bought that less expensive condo with a fixed rate mortgage.
- Teresa could have even waited until the real estate market went soft and bought her dream house at a discount.

The Dismal Science

- Despite the enormous impact macroeconomics has on our personal and professional lives, most of us view it as a remote, complicated, and indeed "dismal science."

Thomas Malthus: The man for whom economics was dubbed the "dismal science"

Some Personal History

- When I first studied macroeconomics, I got buried in a jumble of graphs and equations.
- My epiphany: The best way to understand the power of macroeconomics is to teach it from an historical perspective.
- Important for at least two reasons.

History Provides a Real World Context For the Study of Macroeconomics

Scenes from the Great Depression

Why History is Important

History Reminds Us Macroeconomics is an Evolving Policy Science

- Macroeconomic theories and solutions have changed to meet new economic problems.
- Keynesian solutions worked to lift us out of the Great Depression in the 1930s and the doldrums of the 1960s.
- Keynesian solutions have not been working well in the more sophisticated global economy of the 2010s.

How We Will End This First Lesson

- Briefly define macroeconomics.
- Identify key policy issues.
- Provide a short review of macroeconomic history.
  - We'll start with Classical Economics.

New Problems – New Complexities

- The problems facing macroeconomists have become progressively more complex over time:
  - Unemployment and inflation
  - Stagflation
  - Stagnating income
  - Chronic budget deficits
  - Persistent trade deficits

New Theories For New Complexities

- New macroeconomic theories have emerged in response to increasing complexity
- Key turning points in the world's economic history:
  - Keynesianism in the 1930s
  - Monetarism in the 1970s
  - Supply Side economics in the 1980s
  - New Classical economics in the 1990s and 2000s.
  - A new monetary policy of "Quantitative Easing" following the Great Recession of 2007-2008

LECTURE ONE - PART TWO

Macroeconomics Defined

- *Macro* means big or large
- Macroeconomics focuses on the big economic picture
  - How the overall national economy performs.
- *Microeconomics* deals with the behavior of individual markets and the businesses, consumers, investors, and workers that make up the economy.

The "Big Four" Macro Issues

- Inflation
- Unemployment
- The Rate of Economic Growth
- Forecasting Movements in the Business Cycle

Macro Problem #1: Inflation

- An upward movement of prices from one year to the next.
- Measured by the percentage change in price indices:
  - Consumer Price Index (CPI)
  - Producer Price Index (PPI)
  - GDP deflator

Some Inflation Indices

- Producer Price Index or "PPI"
  - Based on a number of important raw materials.
- Consumer Price Index or "CPI"
  - Calculated by pricing a basket of goods and services purchased by a typical household.
  - Includes prices of items like food, clothing, shelter, fuel, transportation, and college tuition.

The Cruelest Tax

Not Everyone Loses From Inflation

- Unanticipated inflation can actually <u>benefit</u> borrowers at the expense of lenders.
- How can borrowers gain from inflation?

?

An Example

- Suppose you borrow $1,000 from a bank and promise to repay it in two years.
- If the price level doubles because of inflation, the $1,000 which you repay will have only half of the purchasing power of the $1,000 originally borrowed.
- Borrowers can win from inflation! Lenders can lose!

Macro Problem #2: Unemployment

- The unemployment rate:
  - The number of unemployed persons divided by the number of people in the labor force.

Three Kinds of Unemployment

- Frictional
- Cyclical
- Structural

Frictional Unemployment

- The least of the macroeconomist' s worries.
- A natural part of the job-seeking process.
- People quit their jobs just long enough to look for, and find, another one.

Cyclical Unemployment

- A much more serious problem.
- Cyclical unemployment occurs when the economy dips into a recession.
- Macroeconomists spend most of their time trying to solve cyclical unemployment.
- A third type of unemployment, structural unemployment, poses major challenges, too.

Structural Unemployment

- Occurs when a change in technology makes someone's job or job skills obsolete.
  - An auto worker replaced by a robot.
  - A telephone operator replaced by a computerized voice synthesizer.
- Structural unemployment is VERY hard to cure!

Macro Problem #3: The Rate of Economic Growth

- Measured by growth in the Gross Domestic Product or "GDP."
- GDP defined as the market value of all the *final* goods and services produced in a country in a given year.
- Economists have two ways of measuring GDP
  - "Flow-of-cost" or "income" approach.
  - "Flow of product" or "expenditures" approach.

Flow of Product Approach AKA Flow of Expenditures Approach

Consumption by households
plus
Investment expenditures by businesses
plus
Government purchases
plus
Net exports = Exports - Imports

=GDP=

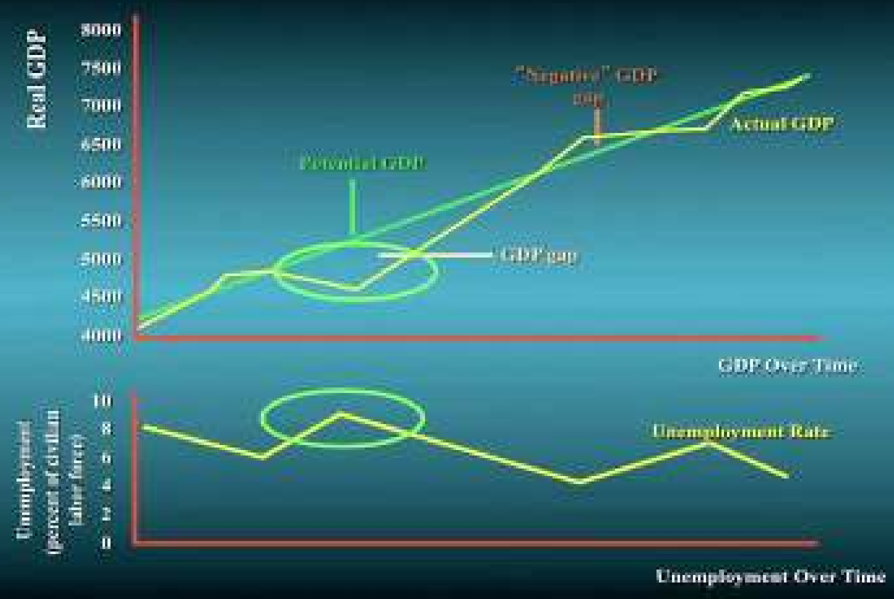
Flow of Cost Approach AKA Flow of Income Approach

All income people earn in a year

Wages for workers
plus
Rents for property owners
plus
Interest for lenders
plus
Profits for firms

Actual vs. Potential GDP

- Actual GDP: What we produce.
- Potential GDP: Maximum economy can produce without causing inflation.
- When actual GDP is *less* than potential GDP, we are in the recessionary range of the economy.
- When actual GDP is *above* potential GDP, we run the risk of inflation.



Nominal vs. Real GDP

- Nominal GDP: Measured in market prices.
- Real GDP: Nominal GDP adjusted for inflation.
- GDP Deflator = Nominal GDP/Real GDP
- GDP Deflator: Another valuable inflation index besides CPI and PPI.

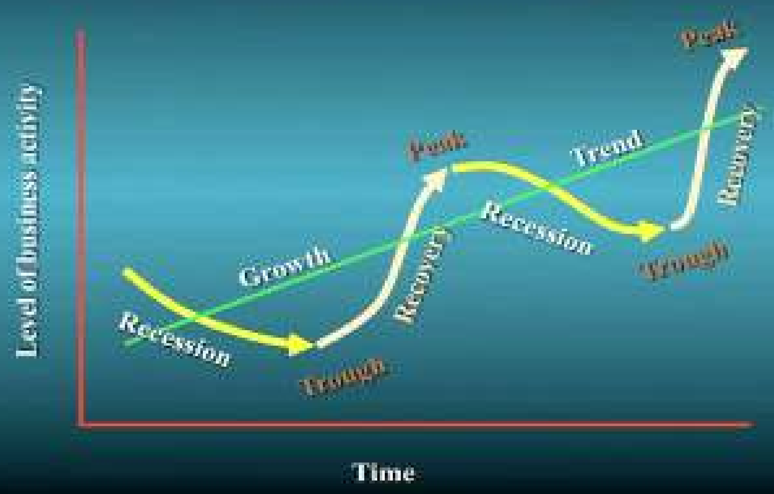
Output Growth

- GDP: Best measure of the level and growth of output in the economy.
- Real GDP: Following its movements gives us the best pulse on our economy

Macro Problem #4: Business Cycles & Economic Growth

- The term business cycle refers to the recurrent ups and downs in real GDP over several years.
- Forecasting the business cycle is an important part of successfully managing an organization or investment portfolio.

Phases of the Business Cycle



Forecasting for Public Policy

- What forces are behind movements in the business cycle?

Central Point: Both macroeconomists & our political leaders want to know what macroeconomic policies may be used to harness the expansionary ups and recessionary downs of the business cycle.

Forecasting for Business

- Business executives want to know if the economy is going to expand or go into recession.
- Forecasting business cycle movements allows executives to plan things like production and inventory levels.
  - If a business bets on an economic expansion and increases production but then gets a recession, it could fail!
- That's why businesses use forecasters – to lower their business cycle risk!

LECTURE ONE - PART THREE

Major Macroeconomic Policy Tools

- In dealing with problems such as inflation and unemployment, the Federal government has a number of policy tools at its disposal.
- The two most important:
  - Fiscal policy
  - Monetary policy

Fiscal Policy Tools

- To stimulate the economy:
  - Increased government spending
  - Tax cuts
- To contract the economy to fight inflation:
  - Decreased government spending
  - Tax hikes

Fiscal Policy Summarized

- Increased government spending
- Tax cuts

→ **Stimulate the economy to fight recession!**

- **Cut government spending**
- **Raise taxes**

→ **Contract economy to fight inflation!**

Monetary Policy

- Increase the money supply

→ **Stimulate the economy to fight recession!**

- Decrease the money supply

→ **Contract economy to fight inflation!**

- Monetary and fiscal policy often used together.

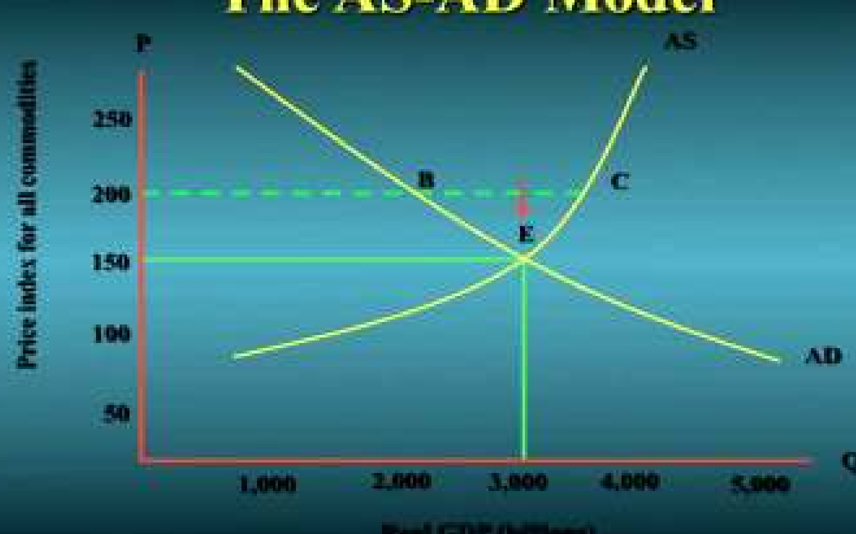
Macro Policy a Double-edged Sword

- Good macroeconomic policies can create prosperity and growth.
- Bad macroeconomic policies can inflict great harm.
  - Example: Bad monetary policy helped trigger Great Depression of 1930s.

Macroeconomics From An Historical Perspective

- Outline the historical evolution of macroeconomic thinking.
- Show how new theories emerged to cope with new macroeconomic problems – like Keynesianism and Monetarism.
- See how macroeconomics continues to be an evolving science
- Learn how macroeconomics is relevant to much of what we do in our personal and professional lives.

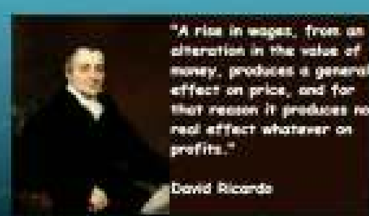
The AS-AD Model



LECTURE ONE - PART FOUR

Classical Economics

- Dates back to the late 1700s.
- Rooted in the *laissez faire* writings of Adam Smith, David Ricardo, and Jean Baptiste Say.



Classical Economics Principles

- Unemployment a natural part of business cycle.
- Economy is self-correcting.
- No need for government intervention like fiscal or monetary policy!

The Classical Economists Get Run Over By the Great Depression

- Between Civil War and Roaring 20's, a series of booms and busts
  - Five depressions!
- The economy always self-corrected like Classical Economists predicted.
- Classical economists were no match, however, for the Great Depression!

The Great Depression Cometh

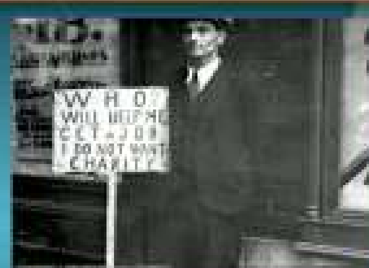
- Stock market crash in 1929.
- GDP falls by almost a third between 1929 and 1933.
- 25% of work force unemployed.
- Business investment fell from $16 billion in 1929 to $1 billion by 1933!

The Birth of Keynesian Economics

- President Herbert Hoover wrongly believed prosperity just around the corner
- Classical economists waited fruitlessly for the "inevitable recovery"
- Enter stage left:
  - Economist John Maynard Keynes
  - President Franklin Delano Roosevelt



The Keynesian View



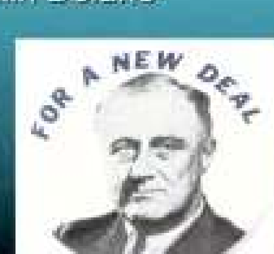
- Keynes flatly rejected the Classical notion of a self-correcting economy.
- He warned that patiently waiting for the eventual recovery was fruitless because "in the long run, we're all dead."

Classical Economics' Death Spiral

- Under certain circumstances, economy would not naturally rebound.
- Instead, it would stagnate or fall into a death spiral!

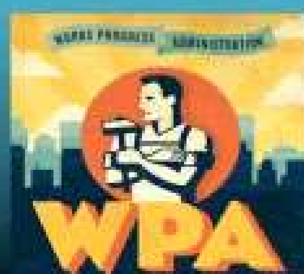
The Keynesian Spending Cure

- Only way to get the economy moving again?
  - Prime the economic pump with increased government expenditures!
- Thus, fiscal policy was born!
  - The Keynesian prescription became the underlying philosophy of Franklin Delano Roosevelt's New Deal.



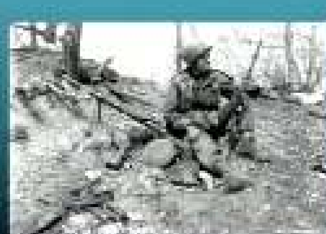
Roosevelt's New Deal and WWII Lifts The Economy

- The New Deal's public works projects PLUS a World War II manufacturing boom lift the American economy up to unprecedented heights!



The Keynesian Cure Redux

- Korean War expenditures stimulate the economy out of a 1950s recession.
- The famous Kennedy tax cut lifts the economy out of the doldrums in the 1960s.



The Promise of "Fine Tuning"

- President Kennedy's chief economic advisor popularized the term "fine tuning."
- The concept: By mechanically applying Keynesian principles, the U.S. economy could be held very close to full employment with minimal inflation.

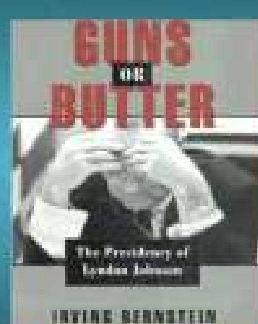
The Kennedy Tax Cut

- 1962: Heller recommend a large tax cut to stimulate the sluggish economy.
- This was revolutionary – usually fiscal stimulus meant more government spending and <u>not</u> tax cuts.
- The Kennedy tax cut made the 1960s one of the most prosperous decades in America.

The Foundation of Stagflation

- This fiscal stimulus laid the foundation for the emergence of <u>stagflation.</u>
- Stagflation is <u>simultaneous</u> high inflation and high unemployment.
- Stagflation would prove difficult to cure with traditional Keynesian tools.

The Roots of Stagflation



Guns Or Butter – You Can't Have Both

- President Johnson increased expenditures on the Vietnam War.
- He <u>refused</u> to cut spending on his Great Society social welfare programs.
- LBJ's refusal to cut "butter" while buying "guns" helped spawn a virulent "demand pull" inflation.

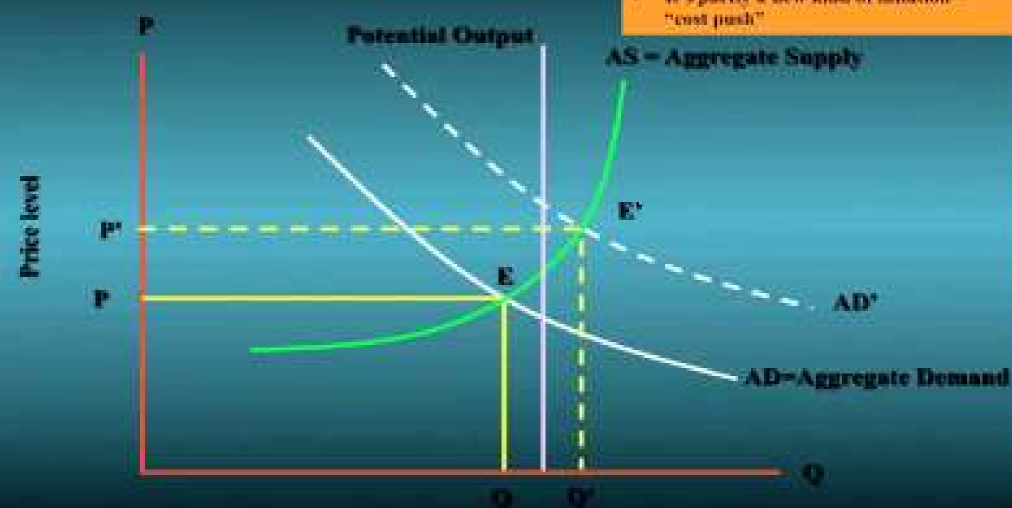
LECTURE ONE - PART FIVE

Demand-Pull Inflation

- "Too much money chasing too few goods."
- When America tried to finance both the Vietnam War and the Great Society, severe demand pull inflation resulted.

Demand-Pull Inflation

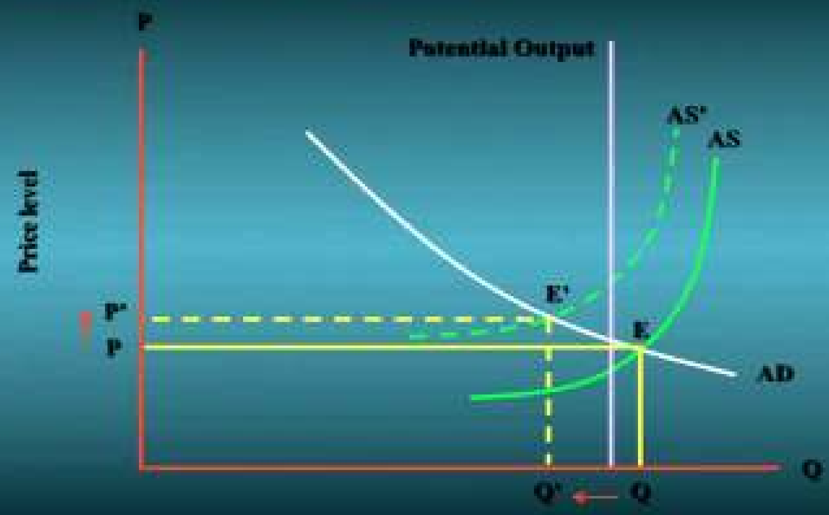
- President Nixon imposes price and wage controls in 1972
- When controls lifted in 1973, inflation jumps!
- It's partly a new kind of inflation – "cost push"



Cost-Push Inflation

- Rapid increases in raw material prices or wage increases drive up production costs.
- This can happen as a result of so-called "supply shocks."
- 1970s shocks included crop failures, a worldwide drought, and a quadrupling of the world price of crude oil.

Cost-Push Inflation



A Budding Keynesian Paradox

- Prior to the 1970s, economists didn't believe you could have simultaneous high inflation and high unemployment.
- If inflation went up, unemployment had to go down – and vice versa.
- Keynesian economics turned out to be incapable of solving the new stagflation problem.

The Keynesian Dilemma

- If expansionary policy were used to stimulate the economy to reduce unemployment, it would exacerbate inflation.
- If contractionary policy were used to fight inflation, it would increase unemployment.
- Ergo, traditional Keynesian tools could solve only half of the stagflation problem at any one time -- and only by making the other half worse.

The Rise of Monetarism

Friedman's Monetarist School

- The problems of both inflation and recession may be traced to one thing -- the rate of growth of the money supply.
- Inflation happens when the government prints too much money.
- Recessions happen when it prints too little money.

The Monetarist Perspective

- Stagflation is the inevitable result of activist fiscal and monetary policies.
- Activist Keynesians try to push the economy beyond its so-called "natural rate of unemployment."
- The "natural rate of unemployment" is also called the "lowest sustainable unemployment rate" or LSUR.

The LSUR or Natural Rate

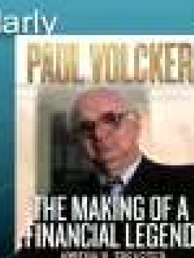
- The lowest level of unemployment that can be attained without upward pressure on inflation.
- Expansionary attempts to go beyond the LSUR may result in short run spurts of growth.
- After each growth spurt, prices and wages inevitably rise and drag the economy back to its LSUR-- at a higher rate of inflation!

Some Bitter Medicine

- Attempts to push the economy beyond its natural rate are futile.
  - They lead to an upward inflationary spiral.
- Monetarists believe that the only way to wring inflation and inflationary expectations out of the economy is to push the actual unemployment rate rise <u>above</u> the LSUR.
- That means inducing a recession!!!!!!

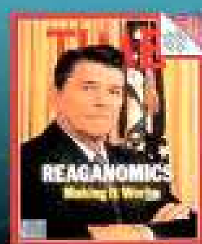
Inducing a Recession

- This is one interpretation of what the Federal Reserve did in 1979 under the Monetarist banner of setting monetary growth targets.
- Under Chairman Paul Volcker, the Fed adopted a sharply contractionary monetary policy
- Interest rates soared to over 20%!!
  - Interest rate-sensitive sectors were particularly hard hit.



A Sweeter Economic Cure

- The Fed's bitter medicine worked to wring inflation out of the economy.
- But after three years of hard economic times, Americans wanted a sweeter cure.
- Enter stage right: supply side economics.



LECTURE ONE - PART SIX

The Supply Side Promise

Cut Taxes

Increase Government Tax Revenues

WITHOUT

Inducing Inflation

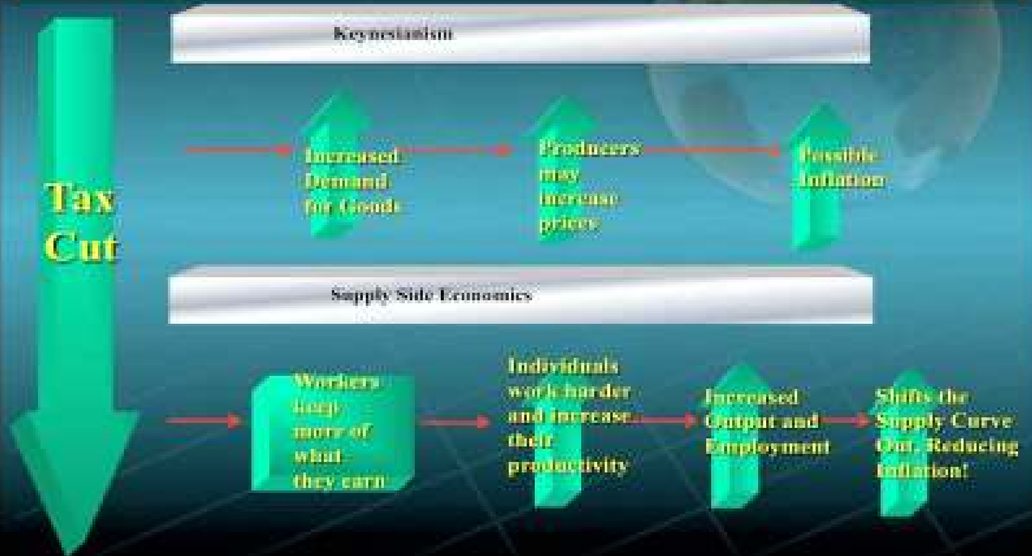
Accelerate the Rate of Economic Growth

The Supply Side Philosophy

- A Supply Side tax cut looks very similar to a Keynesian tax cut.
  - Example: The Kennedy tax cut of the 1960s.
- However, the Supply Siders viewed such tax cuts from a very different behavioral perspective.

Arthur Laffer: The father of Supply Side economics.

The Behavioral Difference



Supply Siders Predicted Lower Budget Deficits!

- The loss in tax revenues from a Supply Side tax cut would be more than offset by the increase in tax revenues from increased economic growth.
- Thus, under supply side economics, the budget deficit would actually be reduced!!!!!

End Result of the Reagan Tax Cuts?

- The Supply Side prediction didn't come true
- The economy boomed but so did America's budget deficit.
- America's trade deficit also soared.

George Bush's "New Classical" Approach

- The budget and trade "twin deficits" deeply concerned Reagan's successor George Bush.
- After the budget deficit jumped over $200 billion in 1990, the economy slid into recession.
- The Keynesian solution would have been more fiscal or monetary stimulus.
- Bush refused more stimulus based on the advice of his "New Classical" advisors.

New Classical Economics

- Based on the theory of "rational expectations."
- If you form your expectations "rationally," you will take into account the future effects of activist fiscal and monetary policies.

Robert Lucas: Won the Nobel Prize in Economics for his work on rational expectations

Central Idea of Rational Expectations

- Activist Keynesian policies might be able to fool people for a while.
- People eventually learn from their experiences.
- Then you can't fool people at all.

A Profound Policy Implication

Rational expectations render Keynesian policies ineffective so they should be abandoned!!!!

Good Economics Makes Bad Politics?

- Refusing to engage in Keynesian stimulus was bad politics for President Bush.
- Bush's advisors rejected a Keynesian "quick fix" even as the recession deepened.
- Instead, these advisors called for more "stable and systematic" policies based on long term goals.
- The deepening recession likely cost Bush the election!!!

It's The Economy Stupid!

- President Bush took his advisors' advice and refused any Keynesian stimulus.
- The economy limped into the 1992 election
- Democrat Bill Clinton ran on a platform that highlighted the failure of Bush's economic policies.
- Clinton beat Bush in 1992 just like Kennedy beat Nixon in 1960 -- because of a weak economy.

Clinton Restored Confidence

- President Clinton actually did very little to stimulate the economy upon taking office.
- The mere fact, however, that Clinton promised a more activist approach helped restore business and consumer confidence.

An Easy Re-election

- Clinton's 1993 deficit reduction legislation signaled Wall Street Clinton was serious about budget balance.
- These factors helped accelerate a recovery already begun towards the end of the Bush presidency.
- The booming economy also set the stage for Clinton's easy re-election in 1996.
- The 1990s marked the longest economic recovery in peacetime history.

The 2000s: A Decade Not So Kind Or Prosperous

- **After President Bush took office in 2001:**
  - **A recession**
  - **The 9/11 terrorist attack**
  - **Two wars in Iraq and Afghanistan**

China Joins the WTO

- China joins World Trade Organization in 2001
- Begins flooding American markets with illegally subsidized exports
  - Over 50,000 American factories disappear.
  - More than 5 million manufacturing jobs lost.
  - American GDP growth rate falls by 2/3rds.

The Great Recession of 2007

- A massive housing bubble bursts.
- The U.S. enters its worst recession since the Great Depression of the 1930s.

Keynesian Economics on Steroids?

- White House and Congress orchestrate biggest fiscal stimulus in history.
- Federal Reserve engineers an equally massive monetary stimulus.
  - Fed Chairman Ben Bernanke Inaugurates tools like "Quantitative Easing"

A New Failure of Keynesianism?

- Fiscal and monetary stimulus packages have been less successful this century than last.
- Economies around the globe seem to face structural problems increasingly resistant to Keynesian solutions.

Purpose of This Course

- Help you better understand the complex global economic forces affecting both your personal and professional life!!!!

In The Meantime

- Economics is not something to be memorized but rather something to conceptualize.
- So as you study it, think about it too.
- Your job and your business might just depend upon it.