

[MACROECONOMICS]

United States 2001 recession
and policy measures using the
IS-LM model.



Submitted by:

Group II

PGP/14/260 NITESH KUMAR GUPTA
PGP/14/290 RAHUL MITTAL

PGP/14/280 MAHTAAB KAJLA
PGP/14/303 SHRUTI KABDAL
PGP/14/315 VISHAD DUBEY

PGP/14/287 PRACHI CHAWLA
PGP/14/313 VINNY ARYA

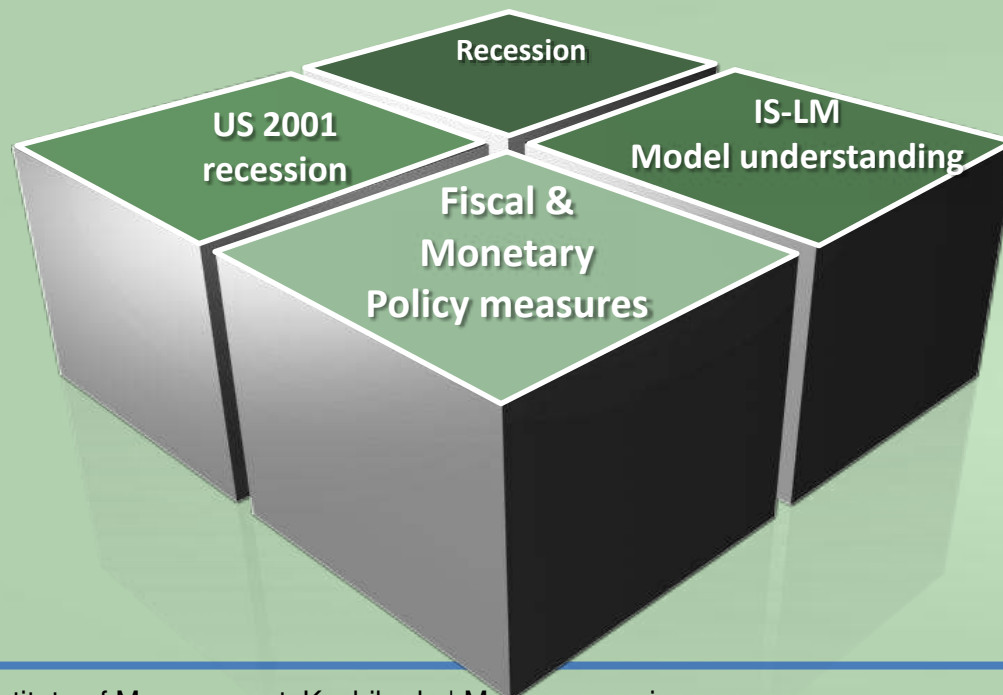
AGENDA

Recession - defined

The **US 2001 recession**

Understanding the **IS-LM Model**

Application of the model – **Fiscal and Monetary Policy Measures**



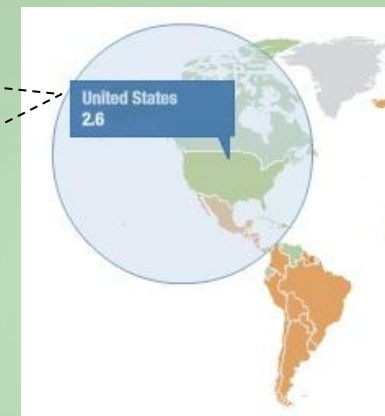
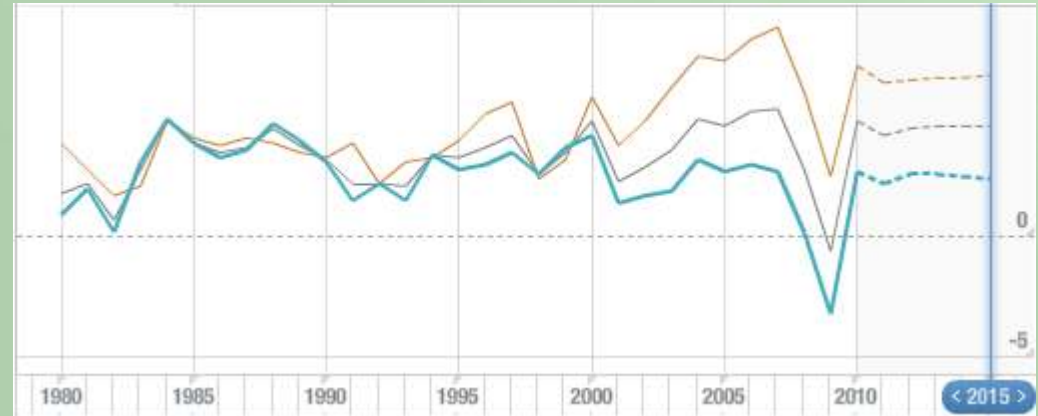
Recession Defined



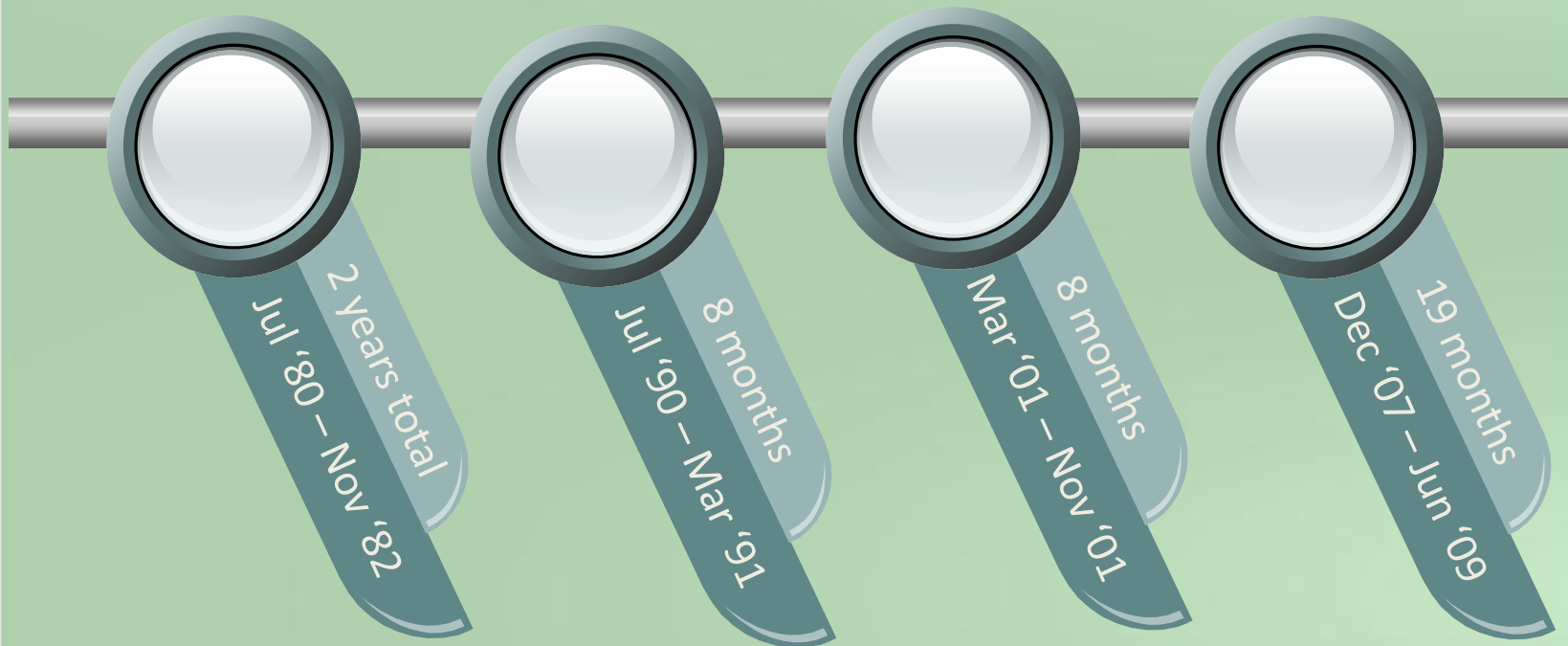
In macroeconomics, a recession is a decline in a country's gross domestic product(GDP), or negative real economic growth, for two or more successive quarters of a year



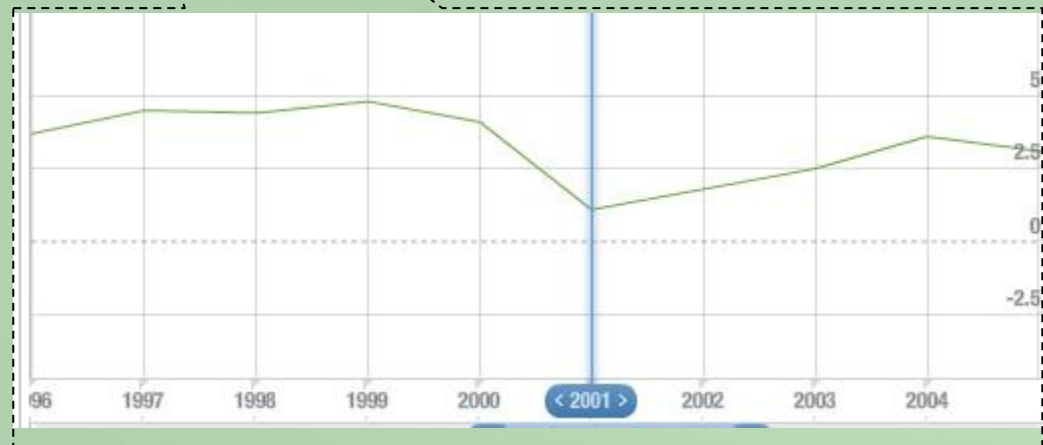
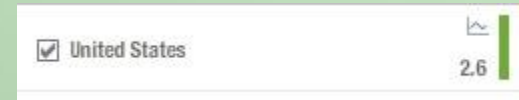
Current Contribution of US



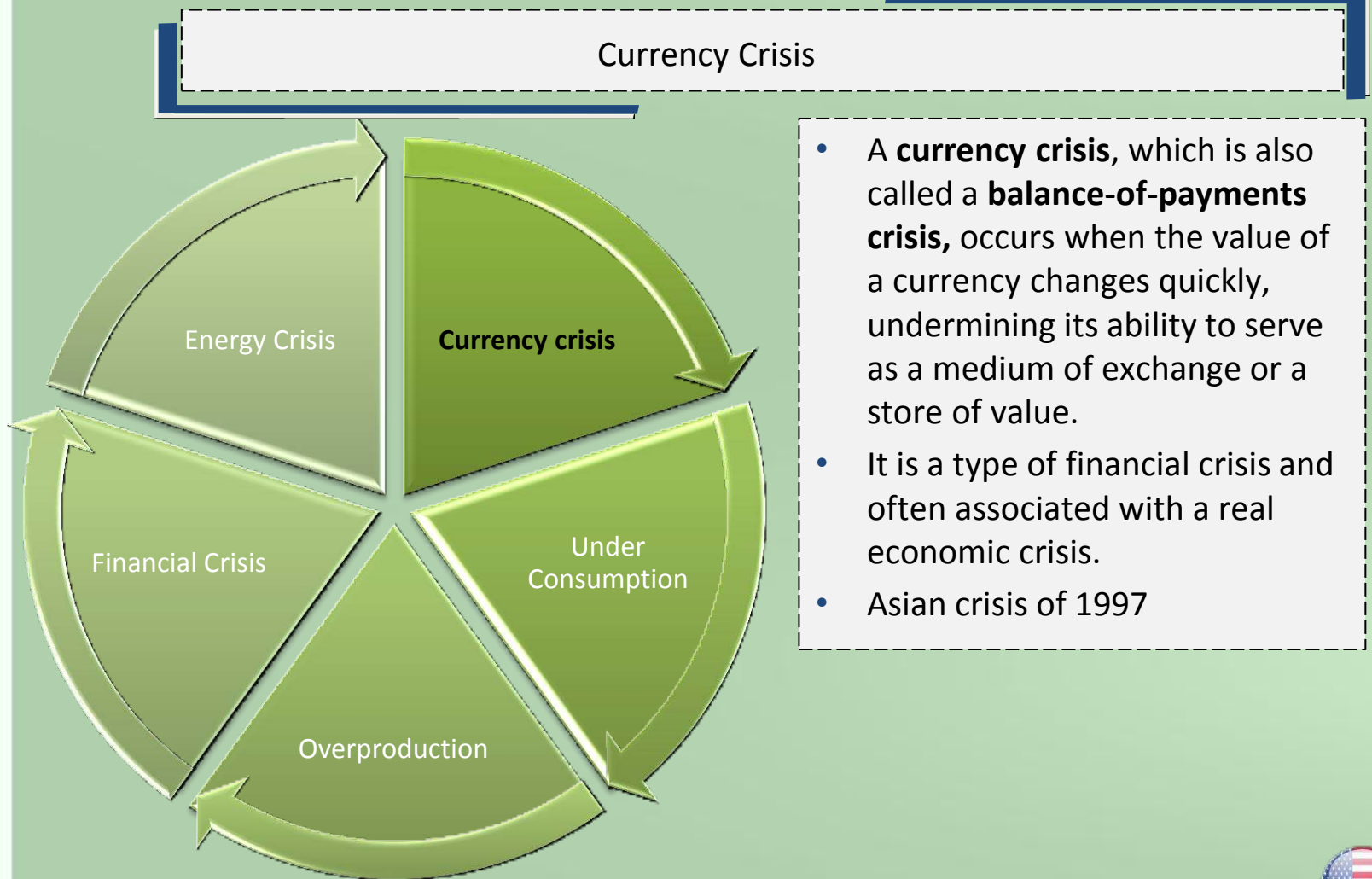
History



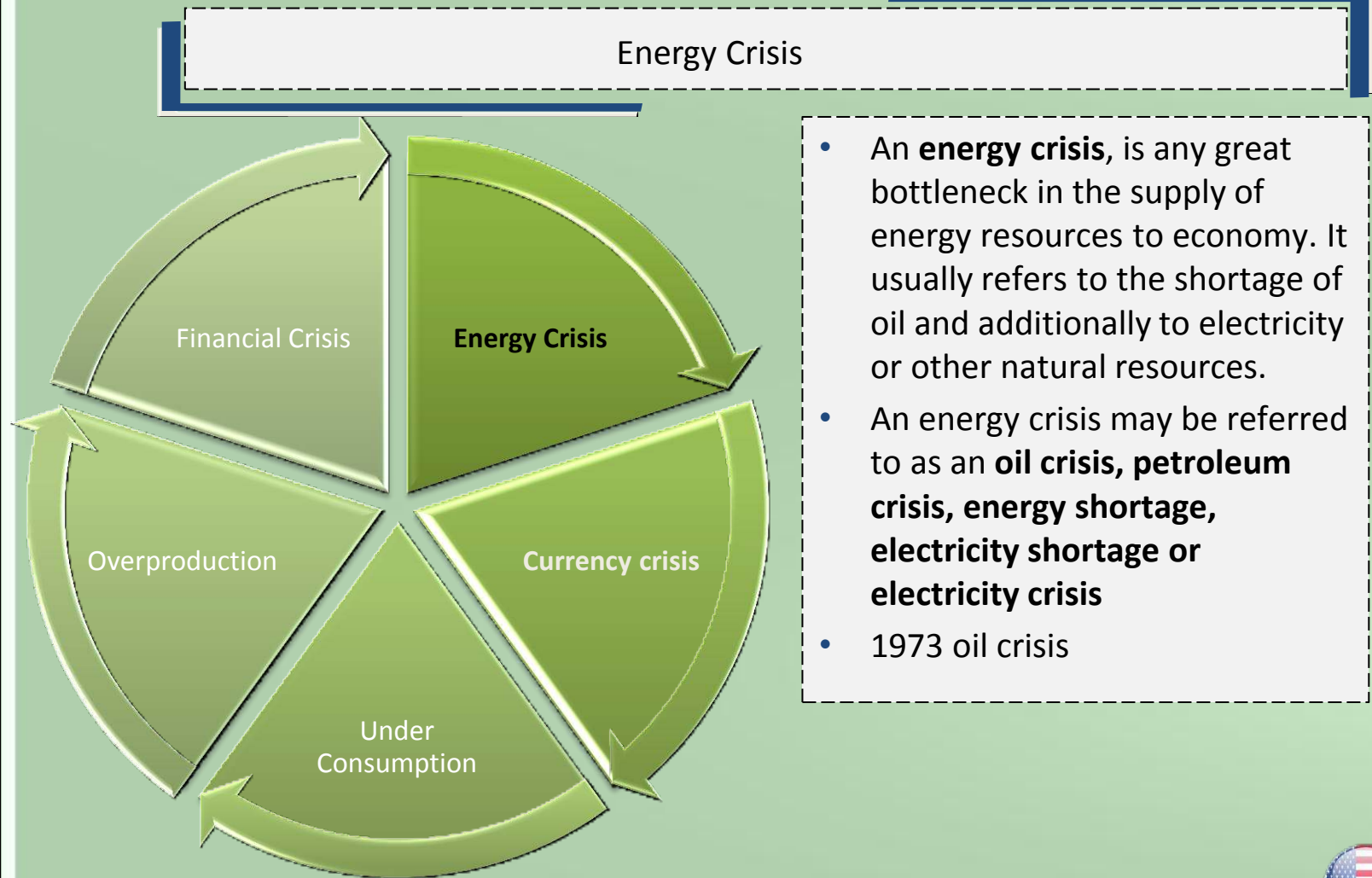
History



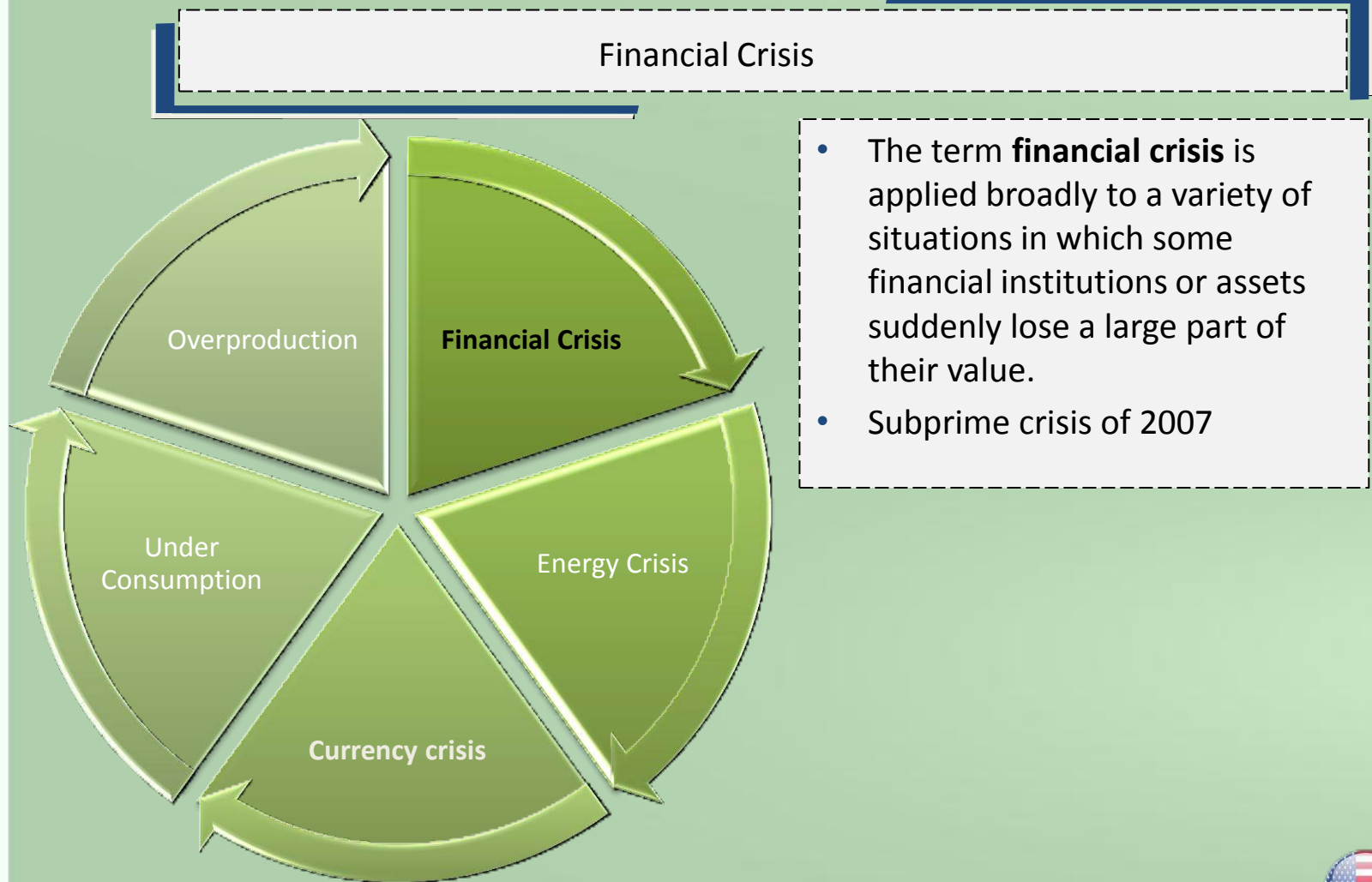
Causes of Recessions



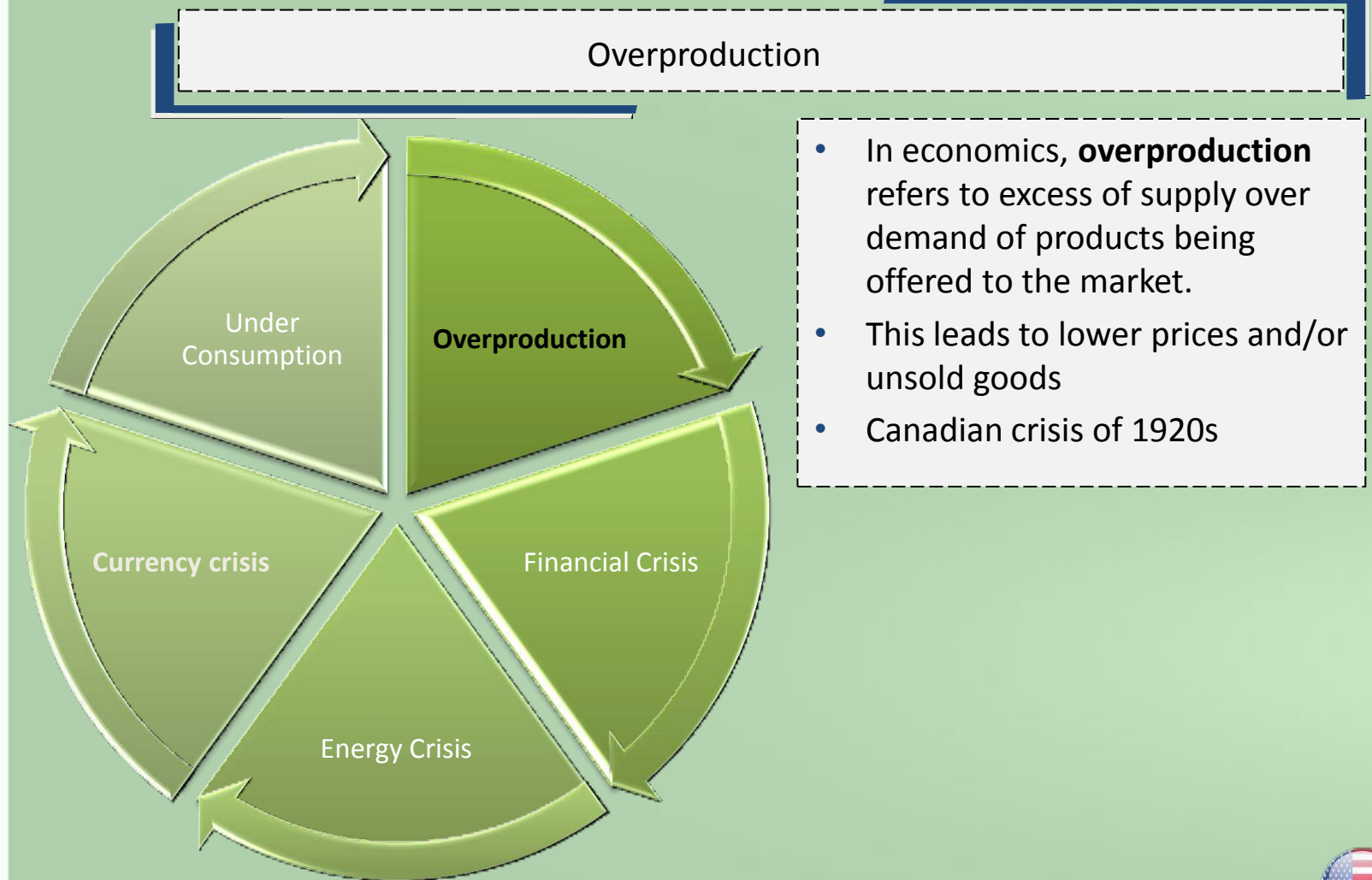
Causes of Recessions



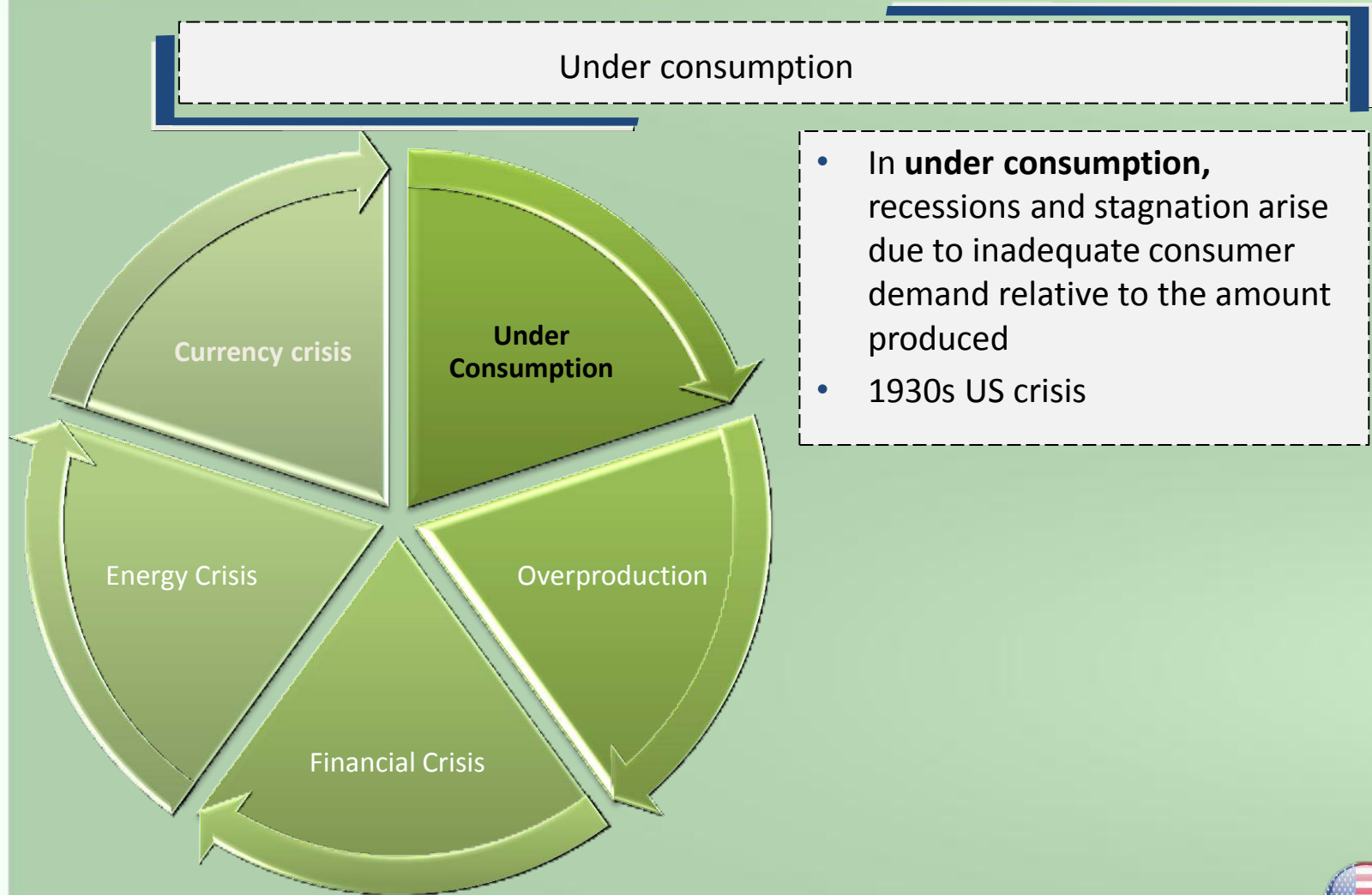
Causes of Recessions



Causes of Recessions

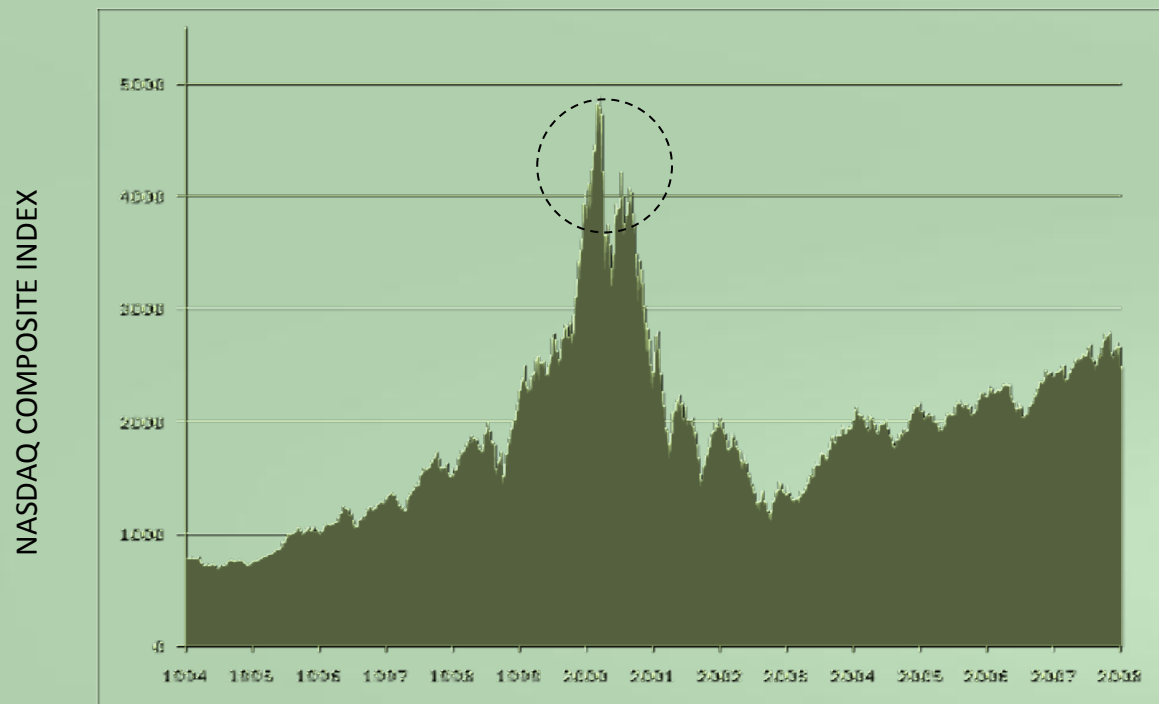


Causes of Recessions



US ECONOMIC RECESSION 2001

Y2K SCARE WITH THE DOT-COM BUBBLE



US ECONOMIC RECESSION 2001

Y2K SCARE!...THE DOT COM BUBBLE

Steep rise in the stock market in 2000 followed by a steep decline leading to a recessionary impact

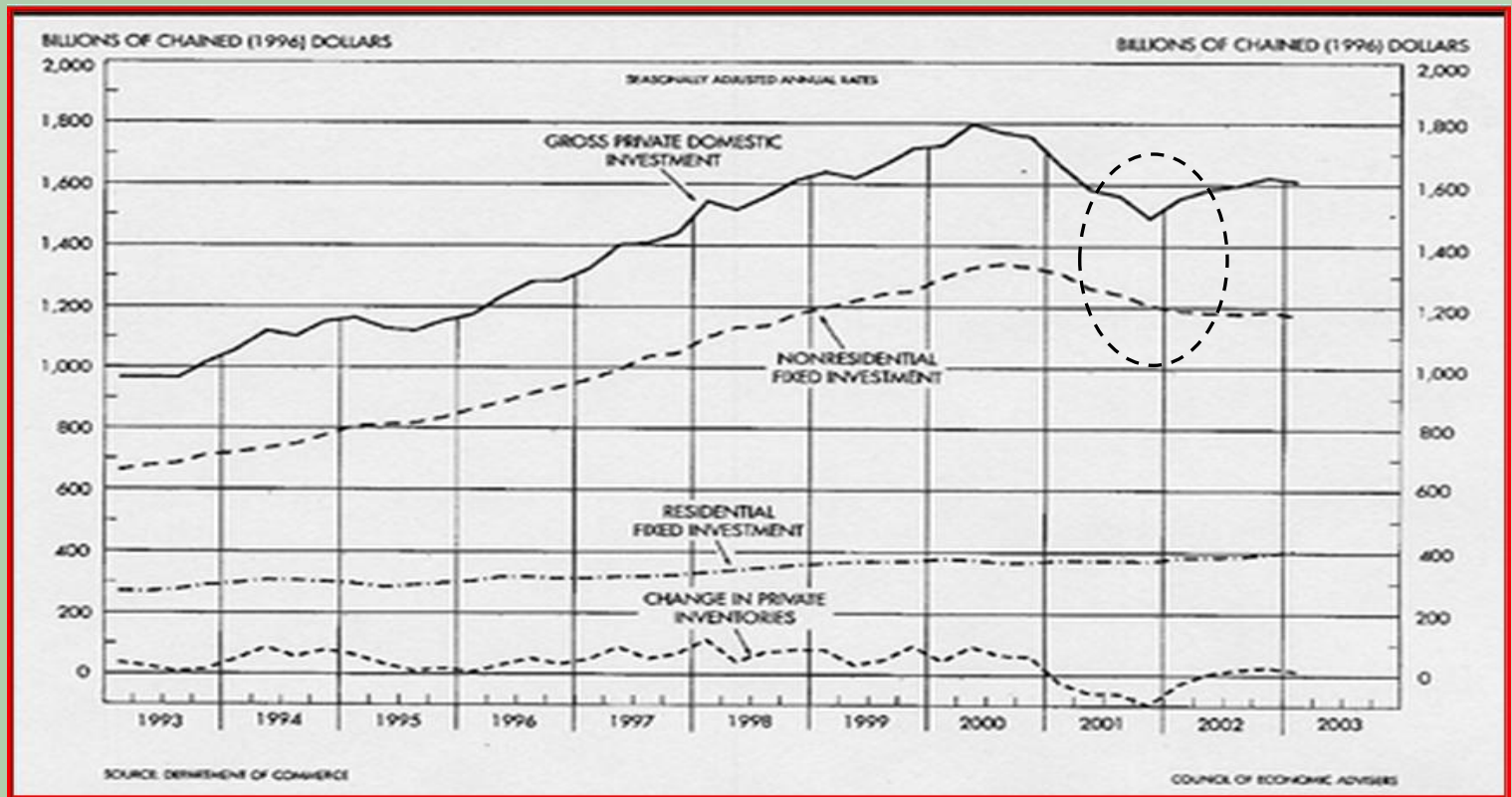


High interest rate by the Federal Reserve limiting liquidity available for investments and procuring cheap business loans and mortgages



US ECONOMIC RECESSION 2001

High Deflationary Impact leading to decline in Investments



US ECONOMIC RECESSION 2001

CORPORATE SCANDALS



- The company which was No 7 on the Fortune 500's list worth more than 60 billion \$ filed for bankruptcy in December 2001

ARTHUR
ANDERSEN



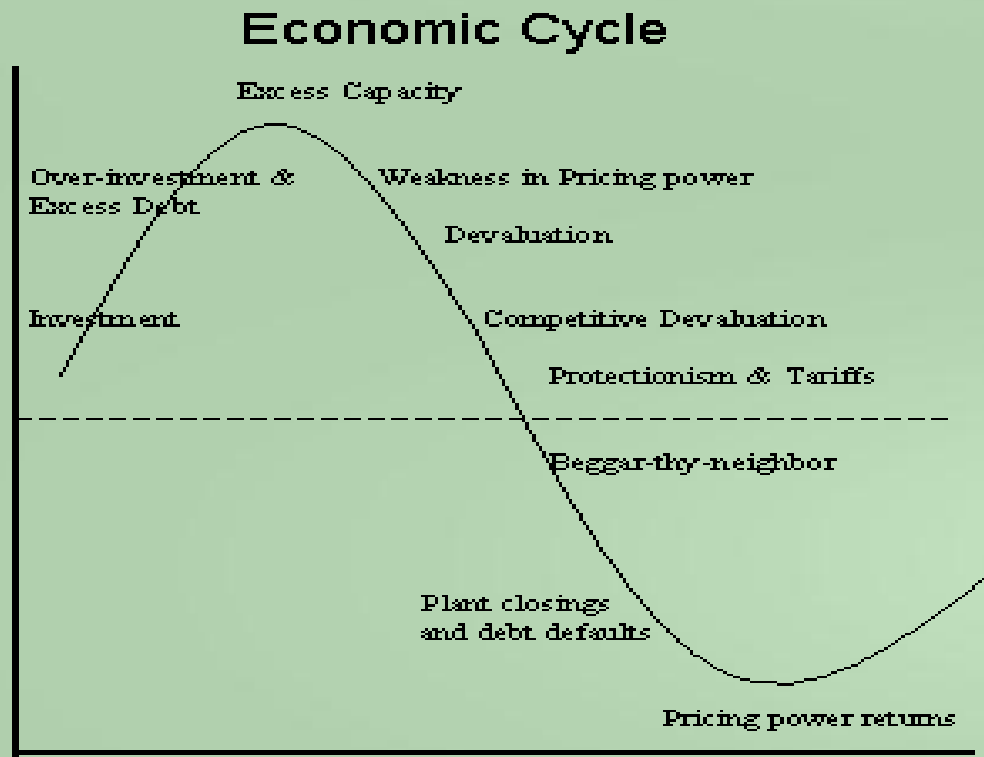
US ECONOMIC RECESSION 2001

What led to it??



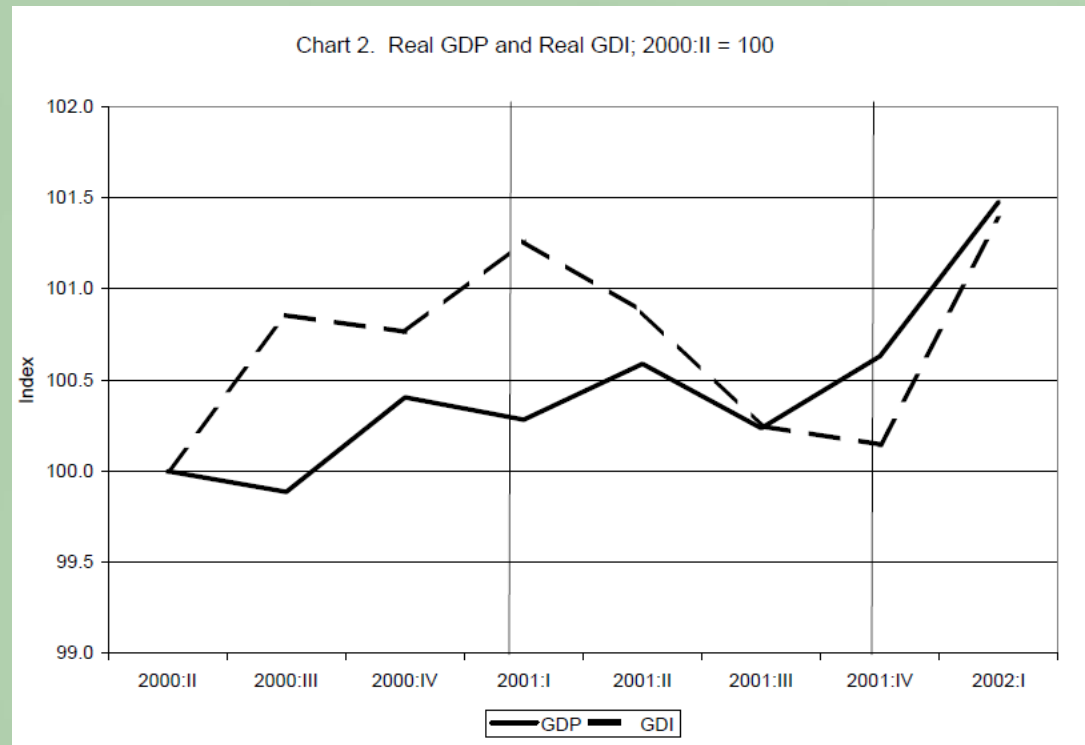
US ECONOMIC RECESSION 2001

NATURAL END TO ECONOMIC CYCLE.



US ECONOMIC RECESSION 2001

Impact on the US Economy

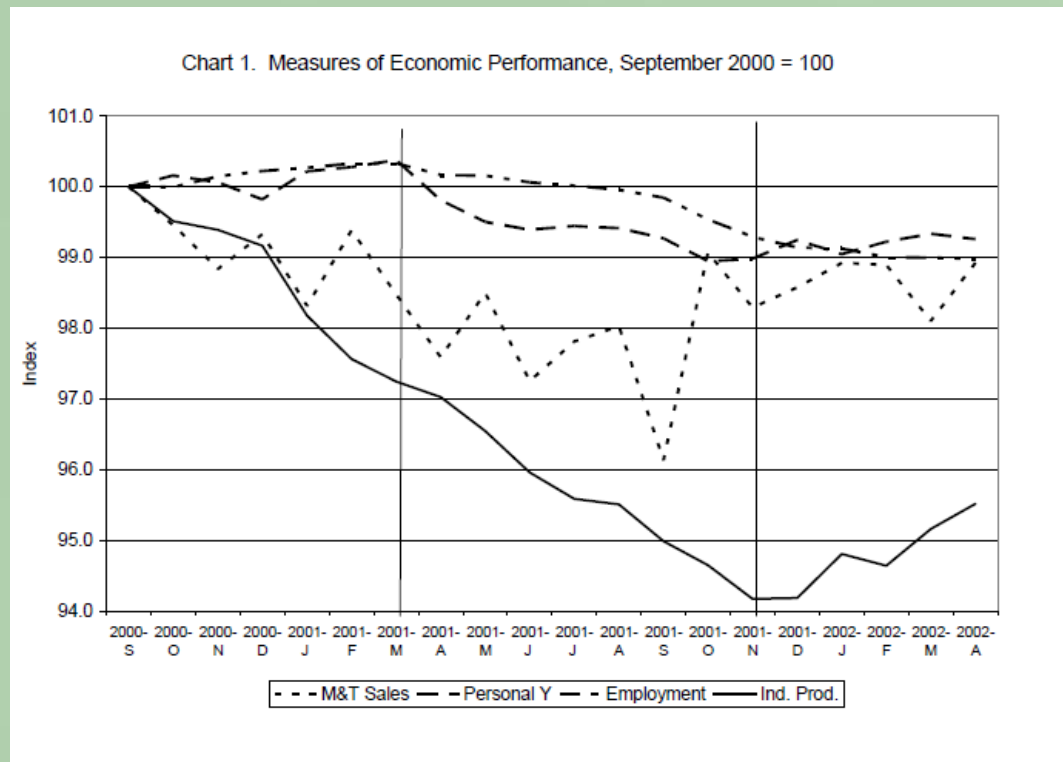


Source: US Bureau of Economic Analysis



US ECONOMIC RECESSION 2001

Impact on the US Economy



Source: US Bureau of Economic Analysis

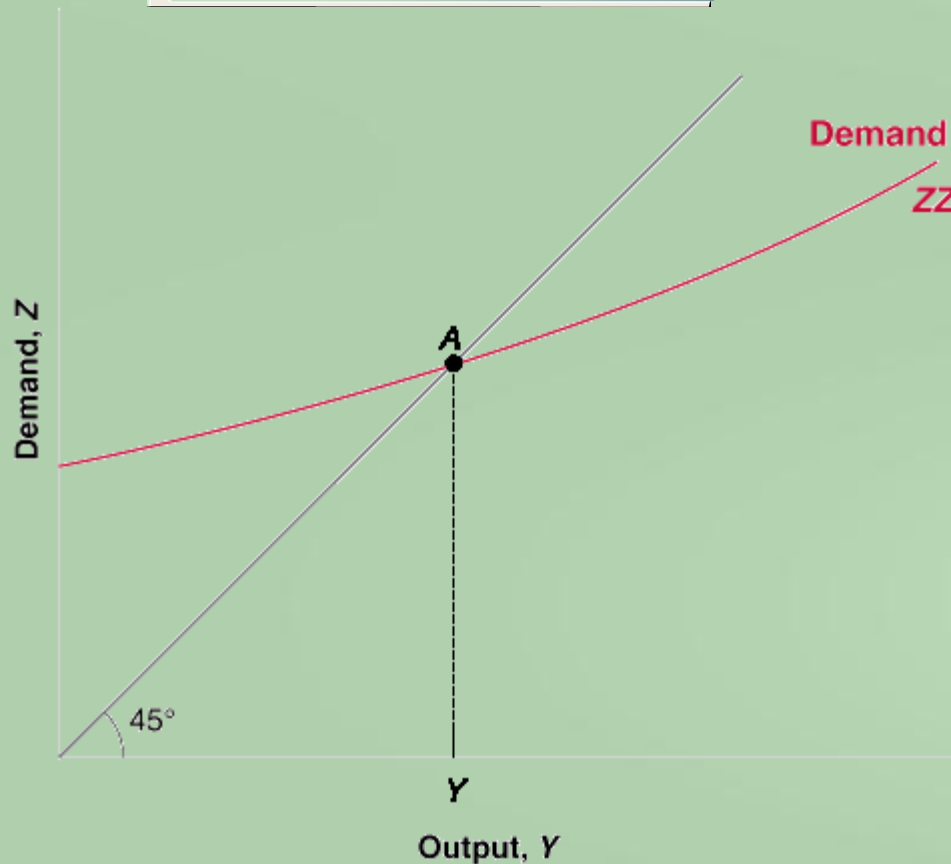


US ECONOMIC RECESSION 2001



The Goods Market

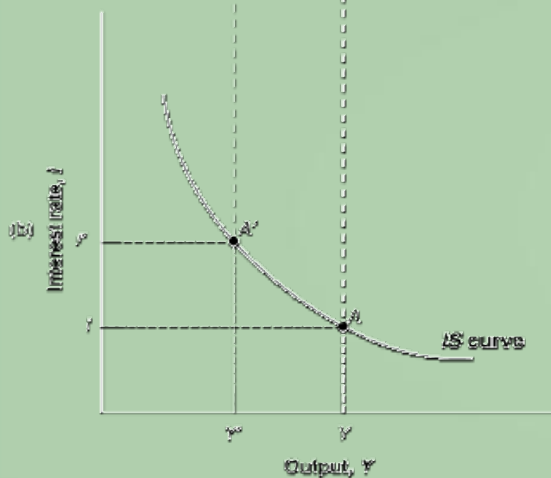
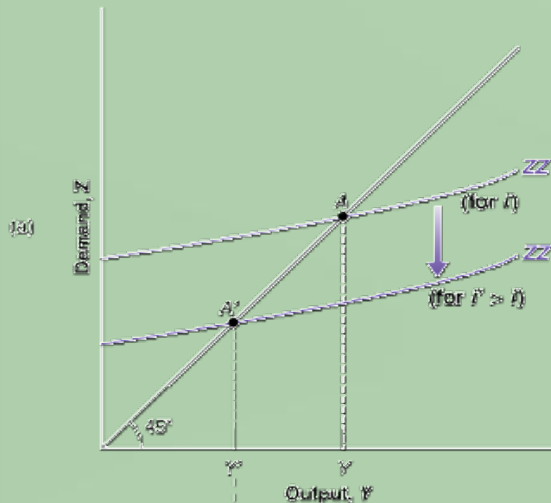
$$Y = C(Y - T) + \bar{I} + G$$



- Demand is an increasing function of output
- An increase in output leads to an increase in income and also to an increase in disposable income.
- An increase in output also leads to an increase in investment.



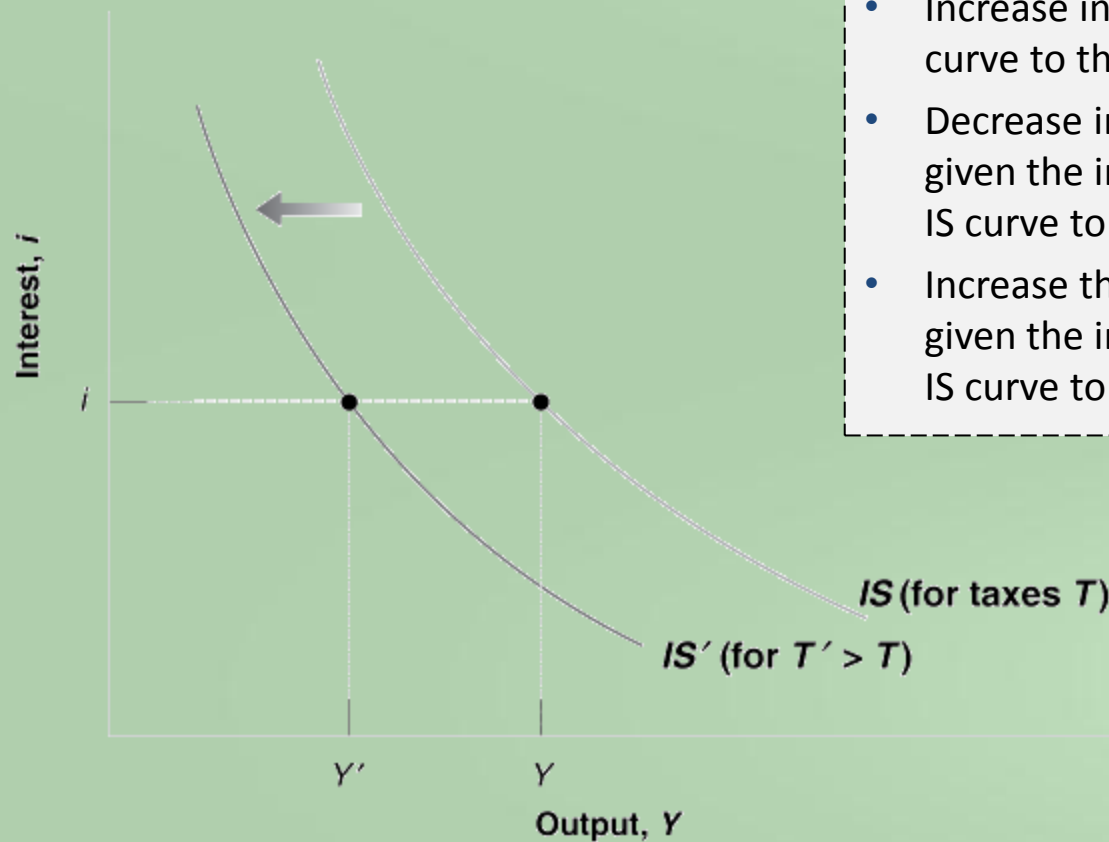
IS Relation



- The higher interest rate ' i ' implies a lower level of output
- The IS curve is downward sloping.
- Relation between the interest rate and output is represented by the downward sloping curve



Shifts of the IS Curve

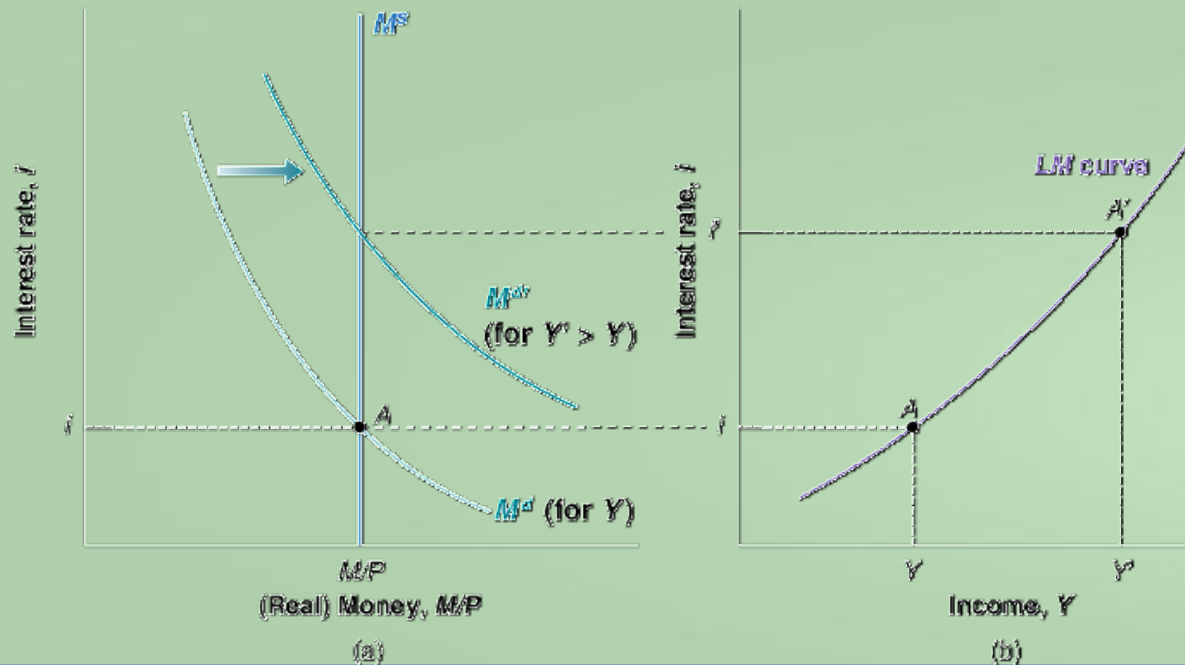


- Increase in taxes shifts the IS curve to the left
- Decrease in demand for goods, given the interest rate, shift the IS curve to the left
- Increase the demand for goods, given the interest rate, shift the IS curve to the right.



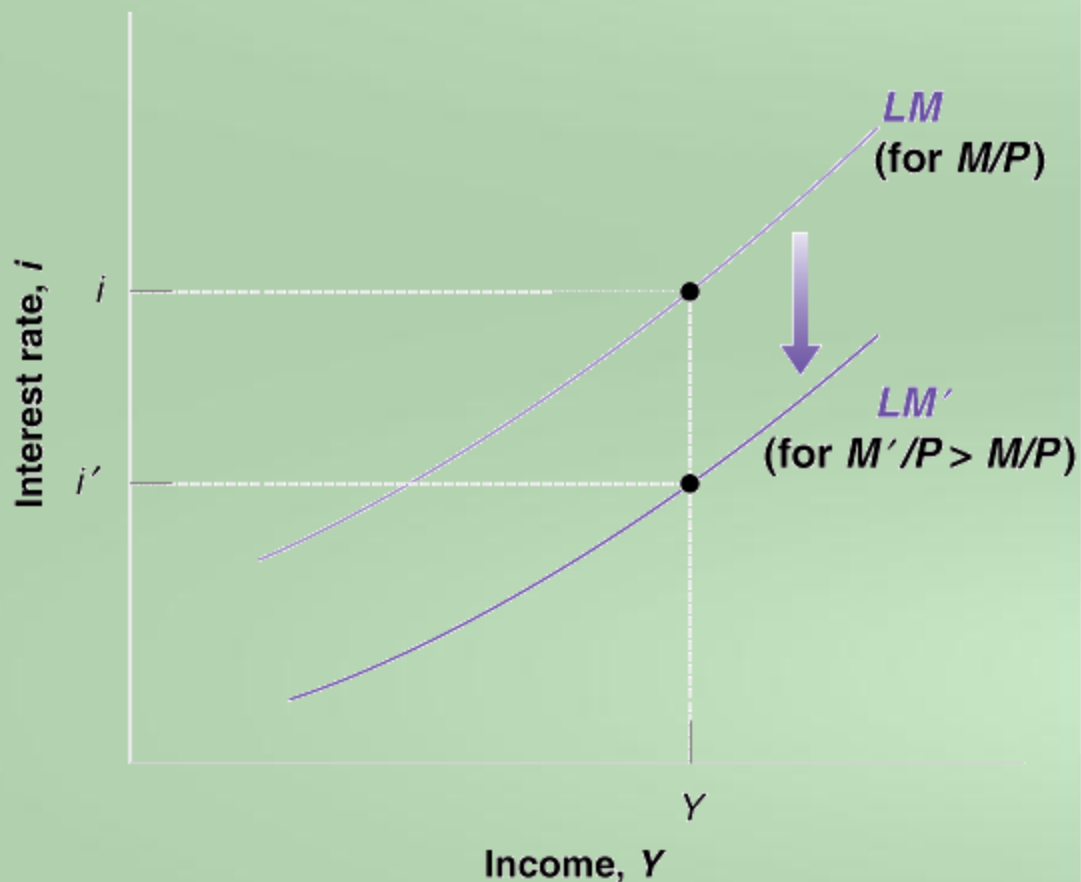
Deriving the LM Curve

- An increase in income leads, at a given interest rate, to an increase in the demand for money. Given the money supply, this increase in the demand for money leads to an increase in the equilibrium interest rate.
- increase in income leads to an increase in the interest rate.
- In equilibrium, the real money supply is equal to the real money demand, which depends on real income, Y , and the interest rate, i $\frac{M}{P} = YL(i)$



Shifts of the LM Curve

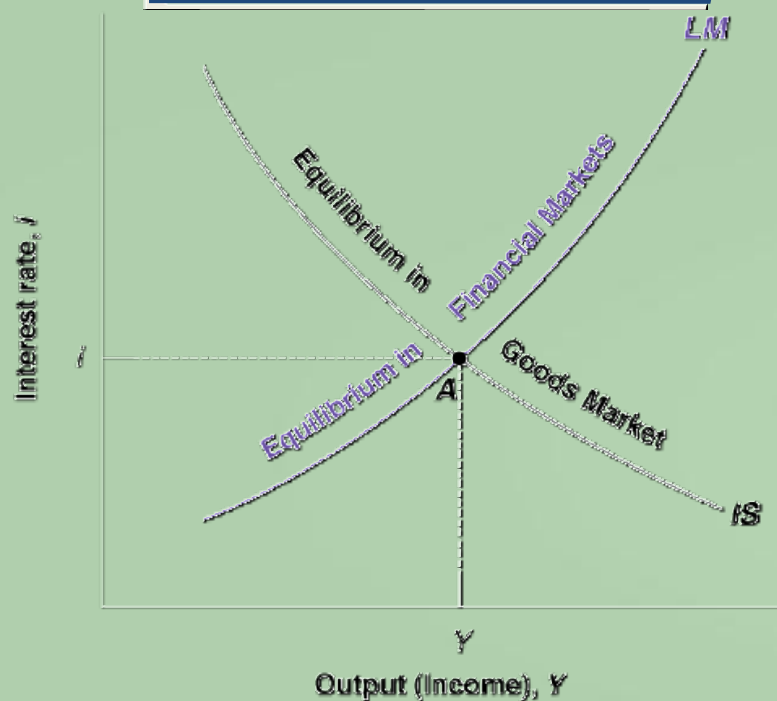
- An increase in the level of income, leads to an increase in the interest rate.
- This relation is represented by the upward-sloping LM curve.
- An increase in the money supply shifts the LM curve down;
- A decrease in the money supply shifts the LM curve up.



IS-LM Model

$$IS \text{ relation: } Y = C(Y - T) + I(Y, i) + G$$

$$LM \text{ relation: } \frac{M}{P} = YL(i)$$



- Only at point A, which is on both curves, are both goods and financial markets in equilibrium.



IS-LM Model



IS-LM.flv



Fiscal Policy

Fiscal Policy changes are effected through:

Change in
Government
Spending

Change in tax
rates



Fiscal Policy

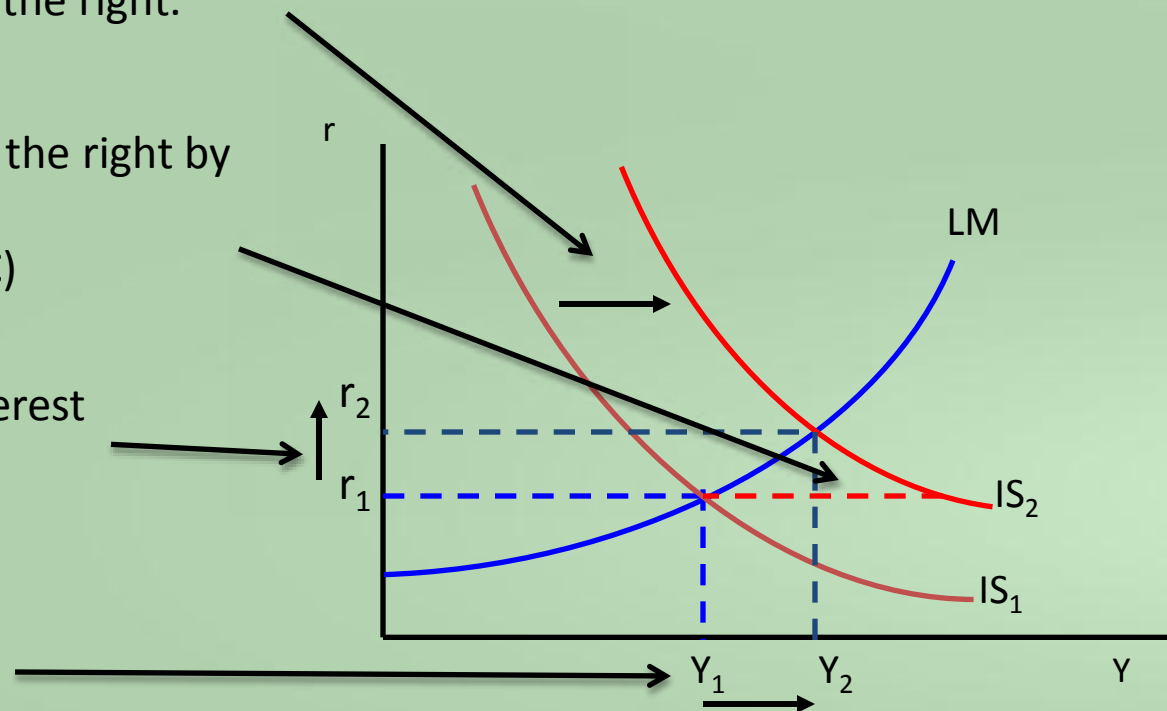
Change in Government Spending

An **increase** in government purchases shifts the IS curve to the right.

The IS curve shifts to the right by
 $\frac{\Delta G}{(1-MPC)}$

Which raises the interest rate...

And the income



Fiscal Policy

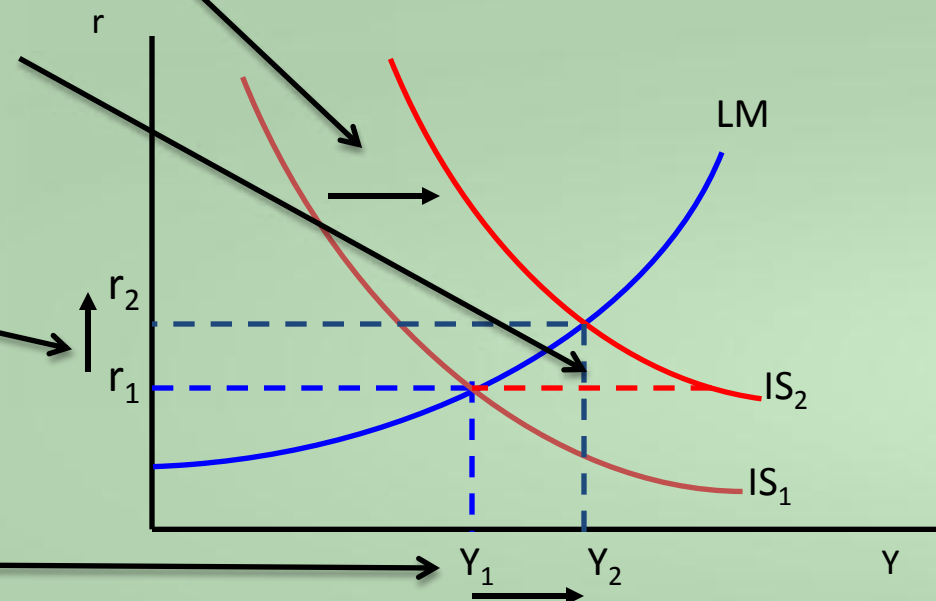
Change in Tax Rates

A **decrease** in tax rates shifts the IS curve to the right

The IS curve shifts to the right by
$$\frac{MPC * \Delta T}{(1-MPC)}$$

Which raises the interest rate...

And the income



Fiscal Policy Measures

Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA)

Designed to expire in 2011

Reduced income tax rates for most taxpayers by a few points

Created a new 10% tax bracket for incomes below \$34,550.

Doubled the child tax credit from \$500 to \$1,000.

Eliminated the “marriage penalty” by making exemptions for married couples equivalent to what they would have had if they were single.

Provided greater tax deductions for education expenses and savings.

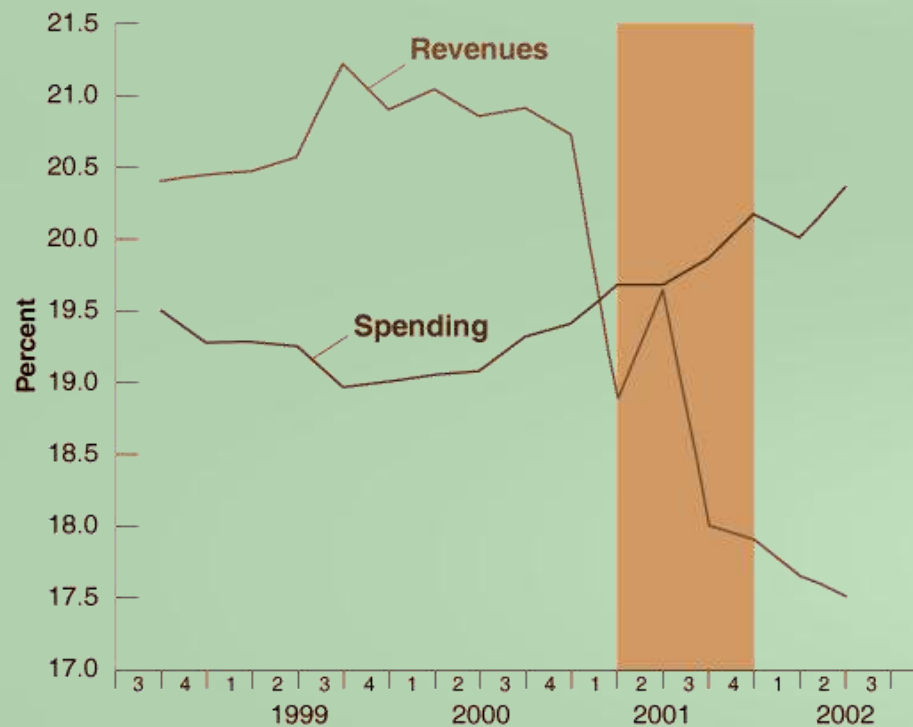
Increased the amount of tax-deductible contributions taxpayers could make to their IRA accounts.

Saved taxpayers \$1.35 trillion over that 10-year period



Fiscal Policy Measures

Increased spending



Monetary Policy

Monetary policy aims to shorten recessions by encouraging

Consumer
Spending

Investment



Monetary Expansion Policy

Purchase of government bonds by central banks through Open Market Operations (OMO)

- Injects more money into the economy

Reducing banks' reserve requirements (CRR & SLR)

- Gives banks more money to lend
- Increased borrowing stimulates business expansion

Lowering short-term interest rates

- Reducing the cost of borrowing
- Reducing rates on home mortgages, giving households additional disposable income



Monetary Policy Measures

Measures taken in 1999 resulted in rapid growth

Economy ran out of steam by 2001

Systematic monetary expansion policy introduced

Series of reductions in the federal funds rate

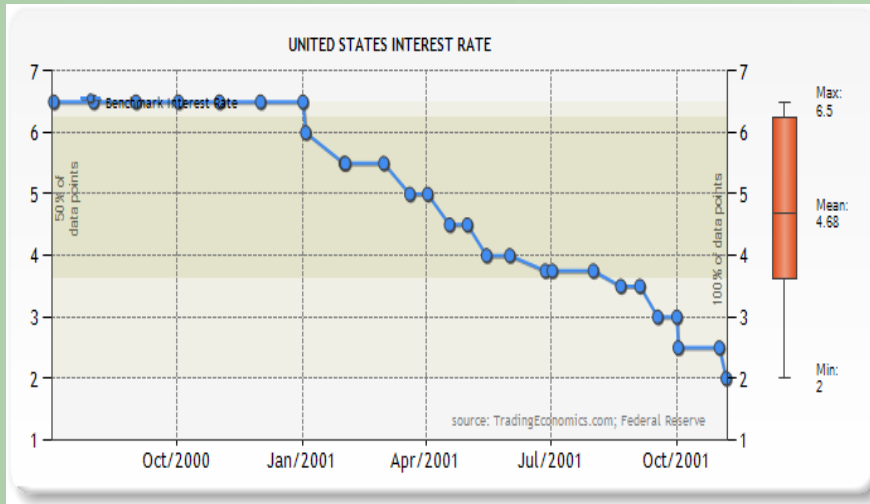
- 6.5% to 1.75% in just 12 months
- To 1% over 30 months

Uncontrolled rate cuts led to a steep decline in the interest rates

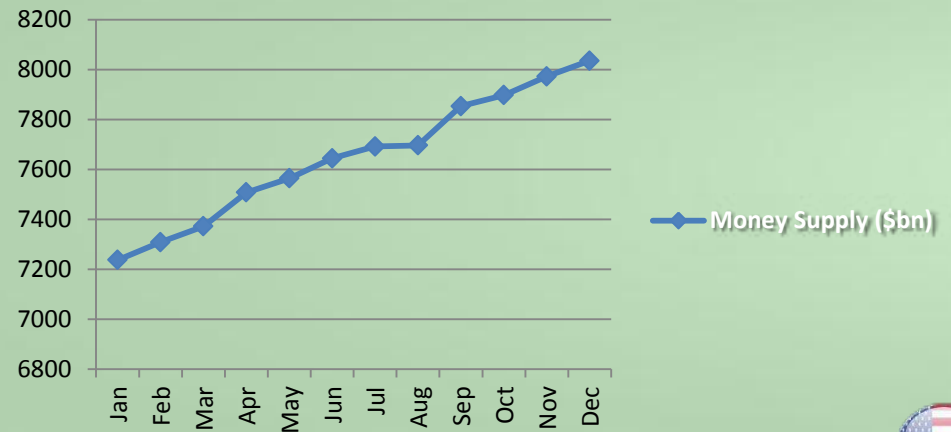
- Rate at the end of 2001 dropped to 1.75%
- In late 2002 the rate was cut to 1.25%
- Mid-2003 it was cut to 1.0%



Effects of Monetary Policy



Money Supply (\$Bn) in year 2001

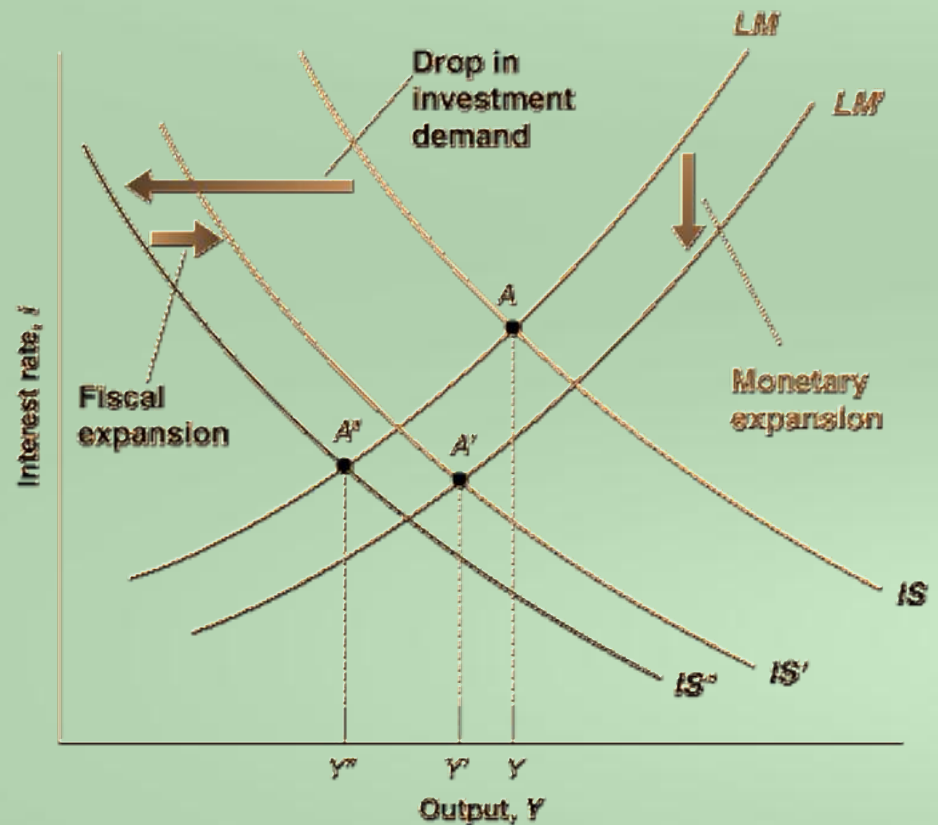


Source : www.tradingeconomics.com



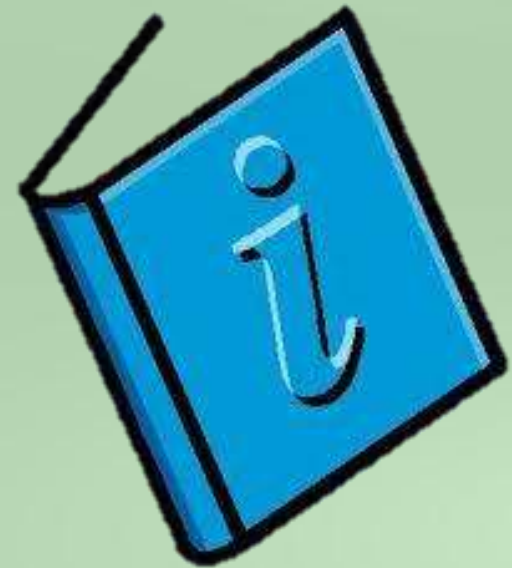
What happened in 2001

- Decrease in investment demand led to a sharp shift of the IS curve to the left, from IS to IS''
- Increase in the money supply led to a downward shift of the LM curve, from LM to LM'
- The decrease in tax rates and the increase in spending both led to a shift of the IS curve to the right, from IS'' to IS'.



References

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- Bureau of Economic Analysis
- San José State University, Department of Economics



Q & A



“The recession started upon my arrival. It could have been—some say February, some say March, some speculate maybe earlier it started—but nevertheless, it happened as we showed up here. The attacks on our country affected our economy. Corporate scandals affected the confidence of people and therefore affected the economy. My decision on Iraq, this kind of march to war, affected the economy.”

George W. Bush

