

ECONOMICS 2

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Course Material Developed by Department of Economics,
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Week 8

Aggregate demand 2

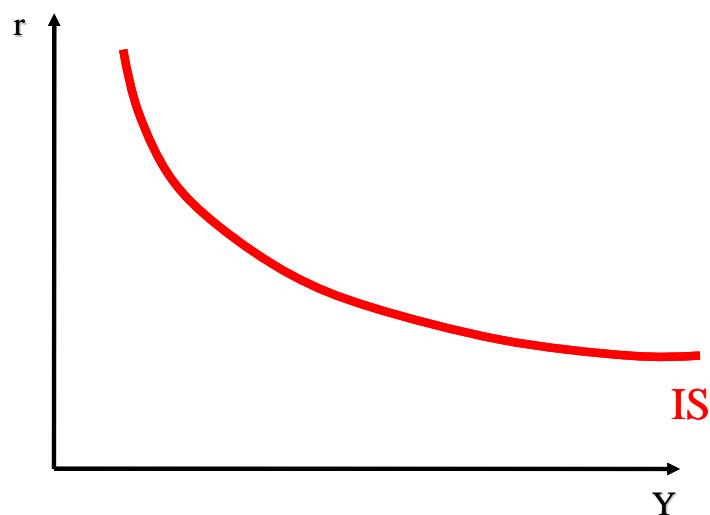
Chapters 10

Outline

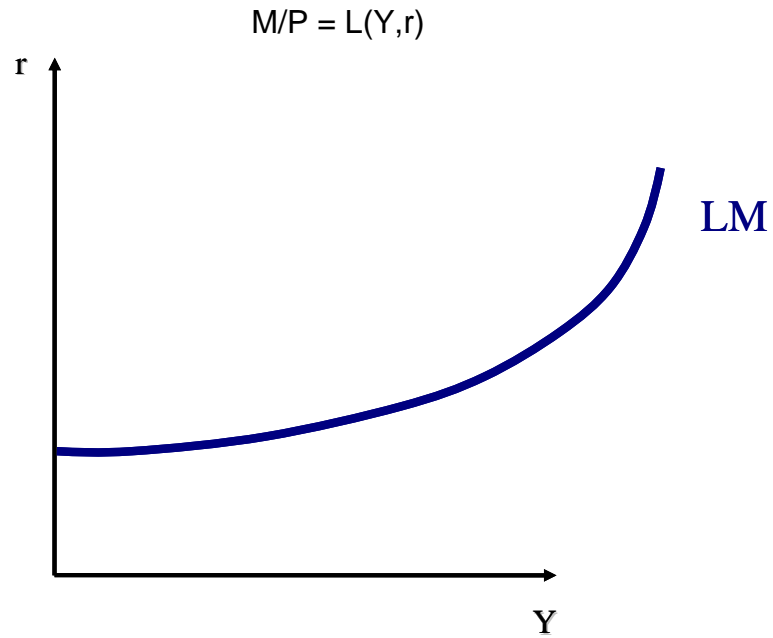
- IS–LM model
- The effect of economic policy
- IS–LM model and aggregate demand

IS curve

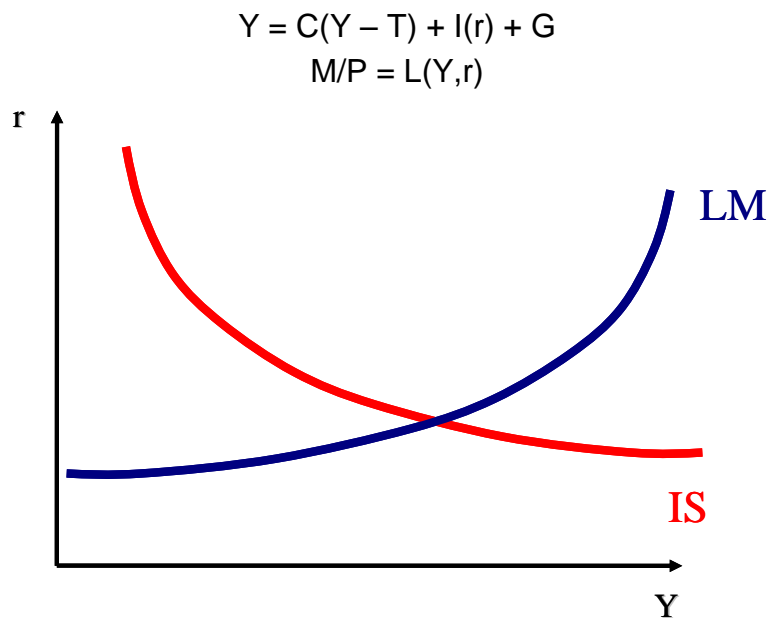
$$Y = C(Y - T) + I(r) + G$$



LM curve



IS–LM model



The effect of fiscal policy

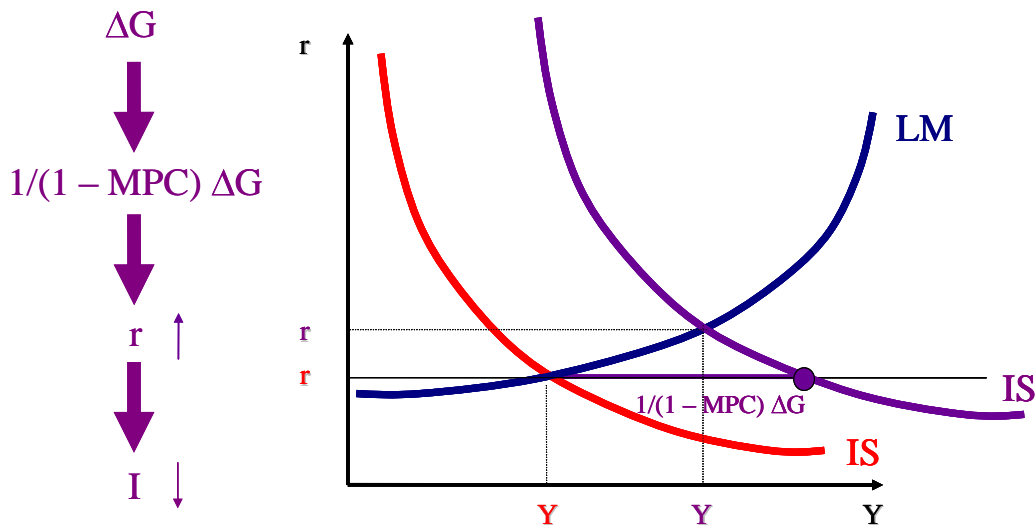
- The effect of fiscal policy can be illustrated by shifting the IS curve.
- We know from the Keynesian cross that if **interest rates are constant** then ΔG increase in public expenditures increases the income by

$$\Delta Y = 1/(1 - MPC) \Delta G.$$

- We also know that the effect of ΔT increase in taxes is:

$$\Delta Y = -MPC/(1 - MPC) \Delta T$$

The effect of an increase in public expenditures



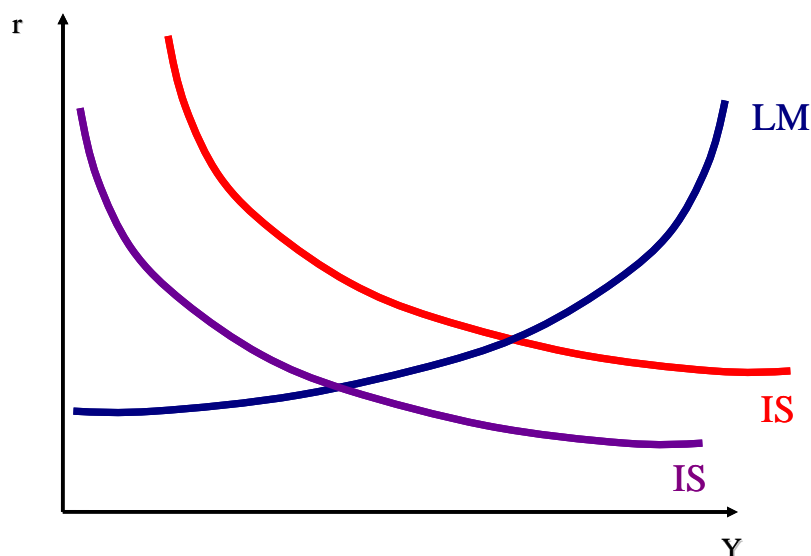
The effect of monetary policy

- The effect of monetary policy can be illustrated with shifting the LM curve
- If the quantity of money rises then interest rates decrease, thus investments and income increase.
- The process when the monetary policy influences the income is called **transmission mechanism**.

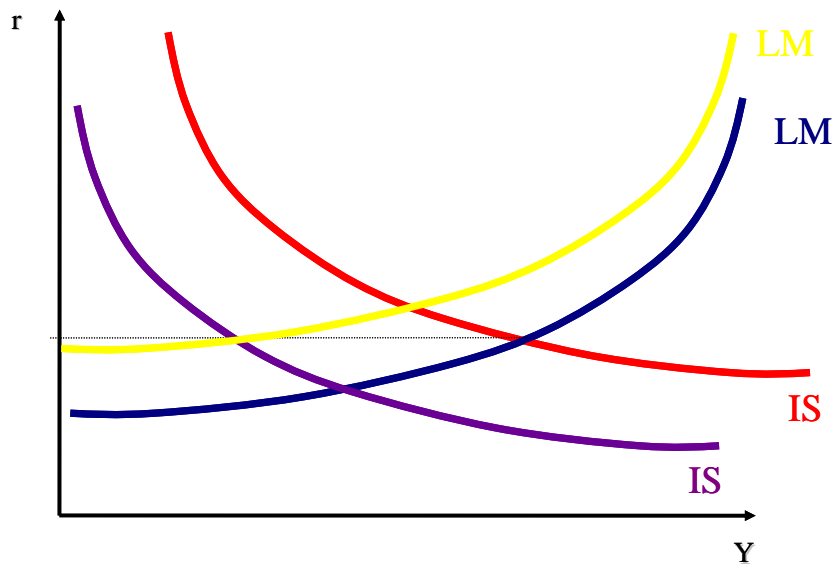
Interaction between fiscal and monetary policies

- The IS–LM system makes it also possible to jointly analyze the effects of fiscal and monetary policies.
- The reaction of monetary policy to tax increase can be various:
 - It might want to keep the quantity of money fixed.
 - It might want to keep the interest rate fixed.
 - It might want to keep the income fixed.

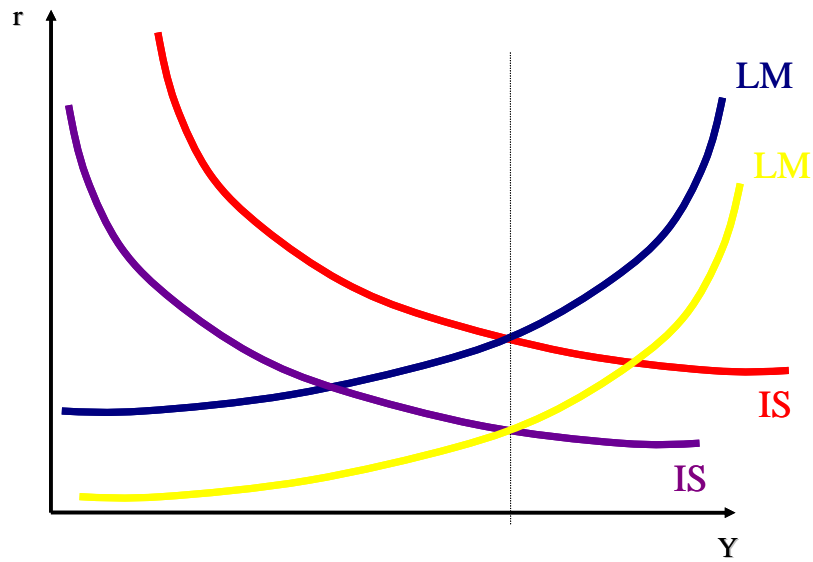
1. Higher taxes, fixed quantity of money



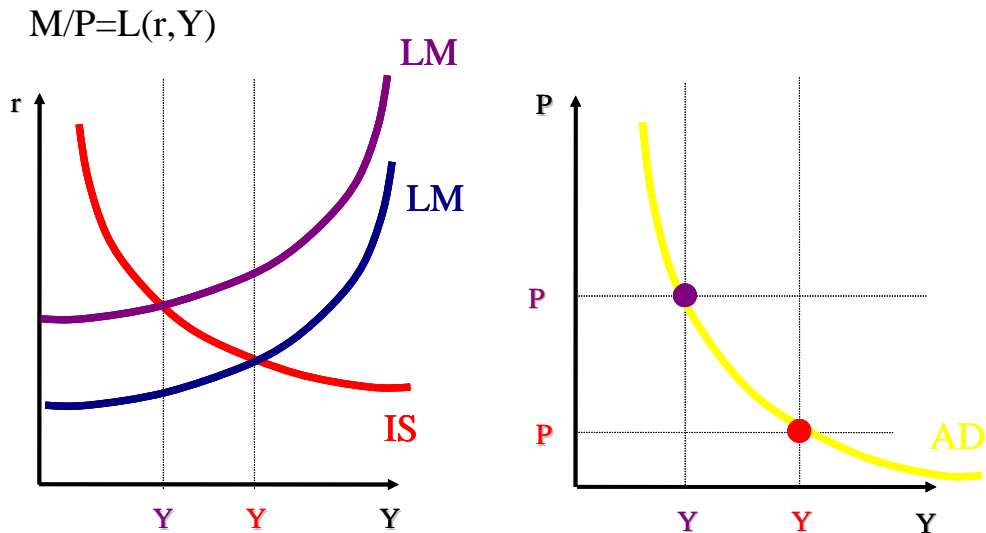
2. Higher taxes, fixed interest rate



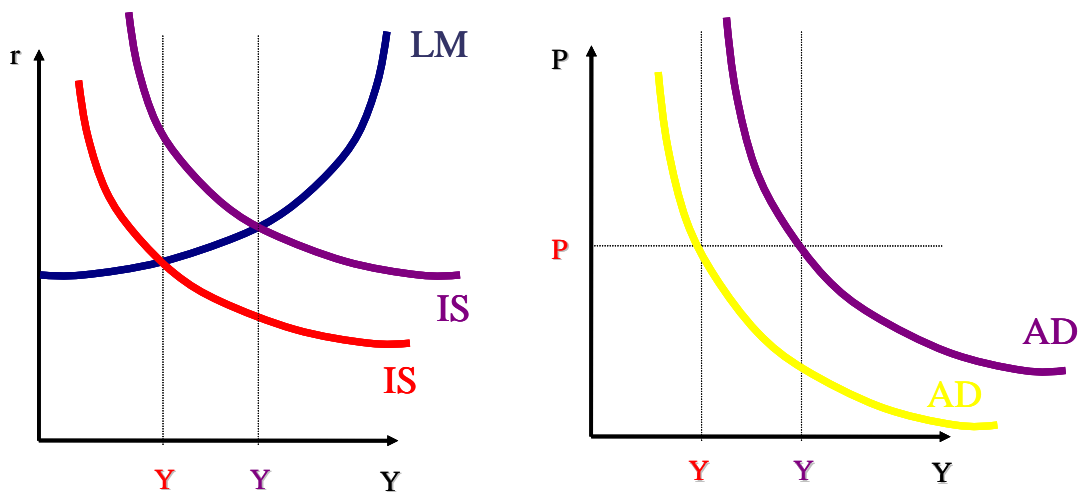
3. Higher taxes, fixed income



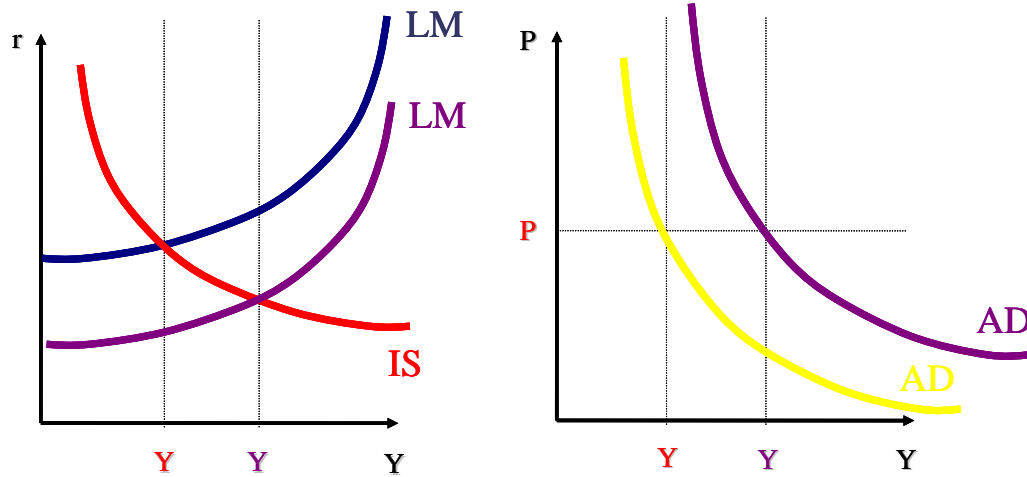
From the IS–LM model to the aggregate demand



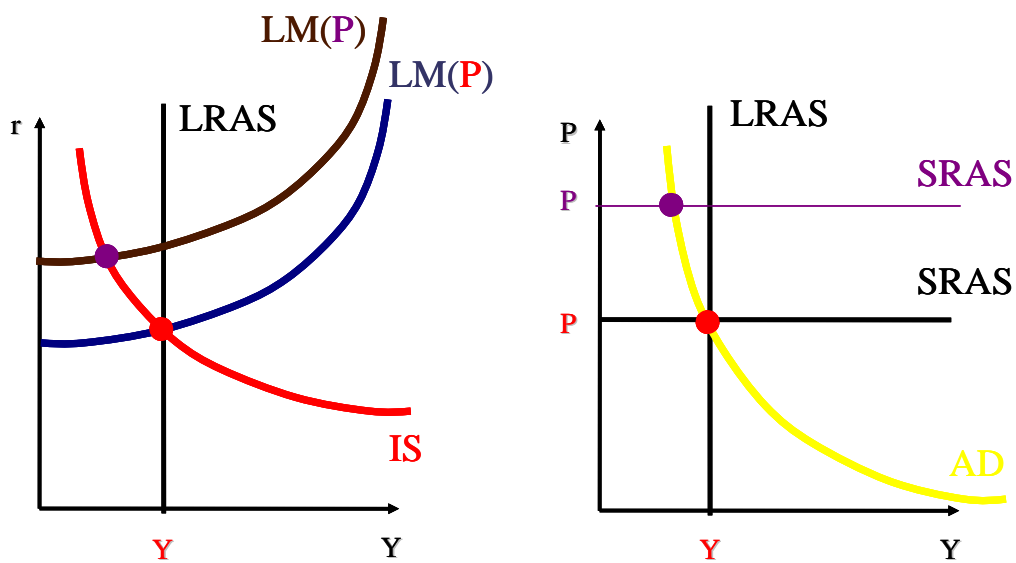
Expansive fiscal policy



Expansive monetary policy



IS–LM model in the short and long run



Difference between the short and long run

$$Y = C(Y - T) + I(r) + G$$
$$M/P = L(r, Y)$$

We describe our system with two equations, thus we can describe the behavior of two endogenous variables.

Endogenous in the short run: Y and r .

Endogenous in the long run: P and r .

Explanations of the great economic depression

During the crisis the income and interest rates declined at the same time, thus according to many economists the crisis was caused by a shift in the IS curve. The shift in the IS curve can be caused by the uncertainty due to the stock market crash or by the drastic drop of real estate investments. These were exacerbated by bank bankruptcies.

The crisis and the fiscal policy

The fiscal policy also shifted the IS curve. That time the main goal of the policy was to restore the budget balance, thus taxes were increased and expenditures were cut.

The crisis and the monetary policy

The money supply decreased by 25% between 1929 and 1933. This indicates that the crisis can be explained by a shift in the LM curve.

Changing quantity of real money can be an explanation rather for the second part of the crisis.

The effect of deflation

In the 1930's the economists expected that with decreasing price level the demand would increase. However, this did not happen.

Two theories to explain it:

1. The unexpected deflation can cause redistribution of wealth between creditors and debtors. The debtors cut down on expenditures more than creditors increase that.

The effect of deflation

2. Expected deflation increases the real interest rate without changing the nominal interest rate, thus the investments decrease.

In both cases the deflation results in a shift in the IS curve.