

# ECONOMIC POLICY





NEW

SZÉCHENYI PLAN

# ECONOMIC POLICY

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Course Material Developed by Department of Economics,

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# ECONOMIC POLICY

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# Economic Policy

## Week 13

### Fiscal policy III

Péter Pete

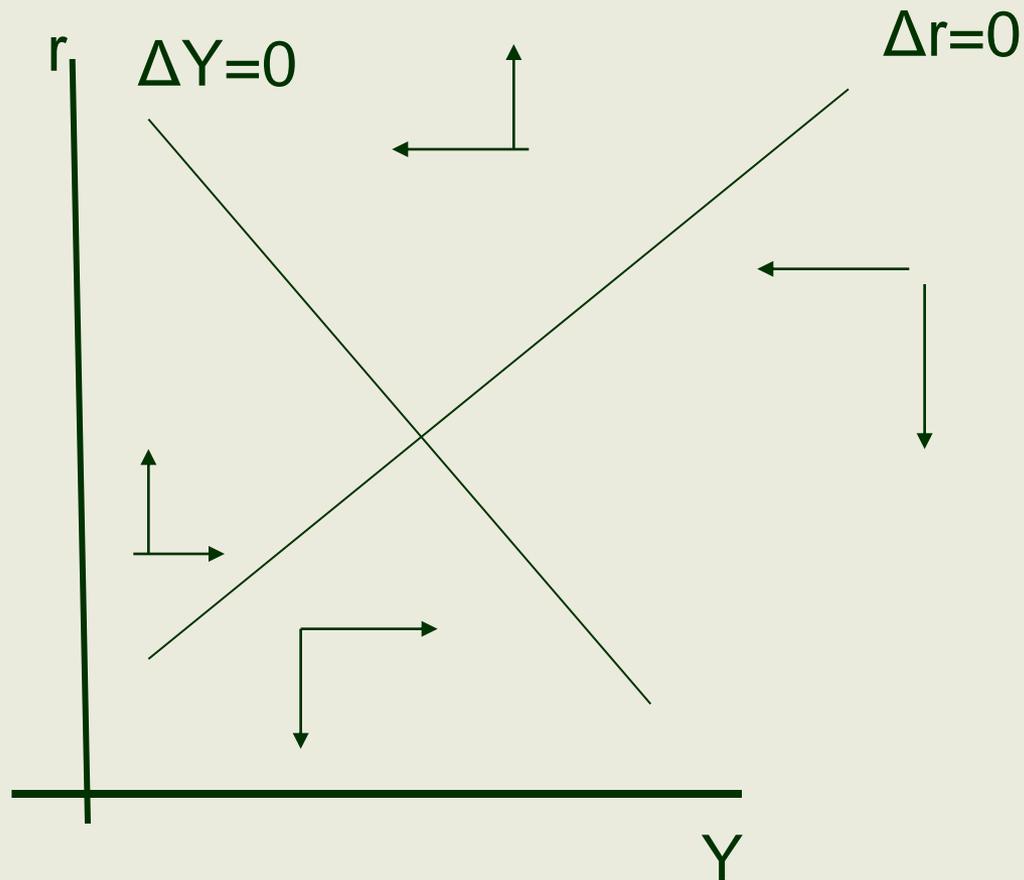
# The complete model

$$Y^d = aY - br + G$$

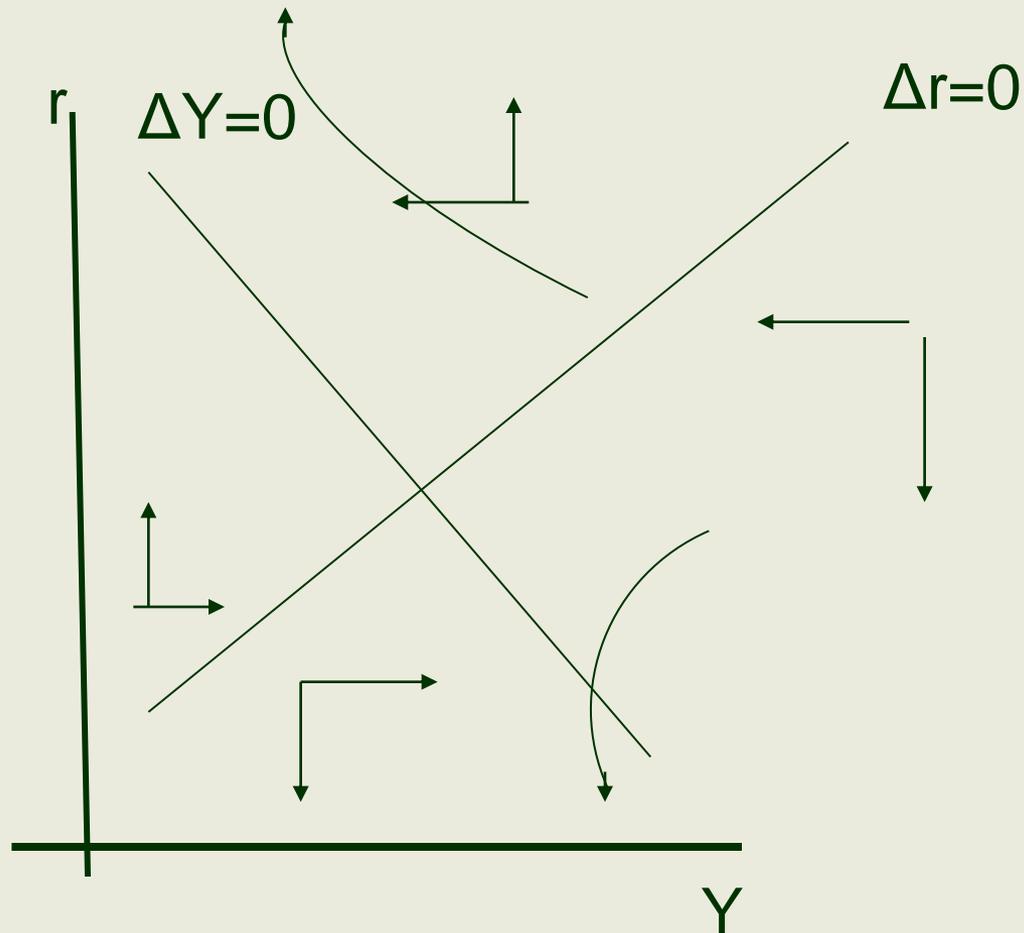
$$\frac{\partial Y}{\partial t} = \lambda(Y^d - Y)$$

$$\frac{M}{P} = \beta Y - \gamma \left( r - \frac{\partial r}{\partial t} \right)$$

# The complete model



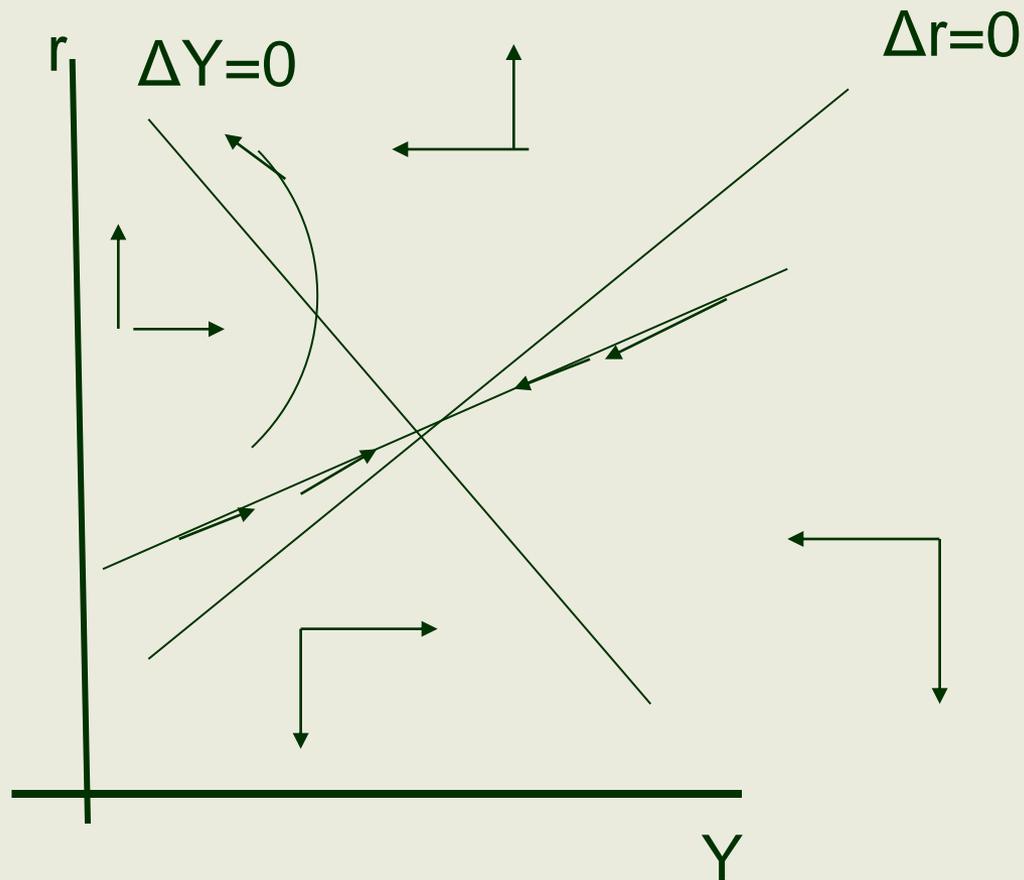
# Globally unstable system



# Saddle point path

- A globally unstable system. Most of the starting points  $(Y, r)$  would not lead to the final equilibrium, the system is not convergent.
- There are some special points, however, such, that if we start out from those, we follow an equilibrium path.
- It is a saddle point path.
- It makes an unstable equilibrium, any small departure from that path would lead to a final collapse.

# Saddle point path



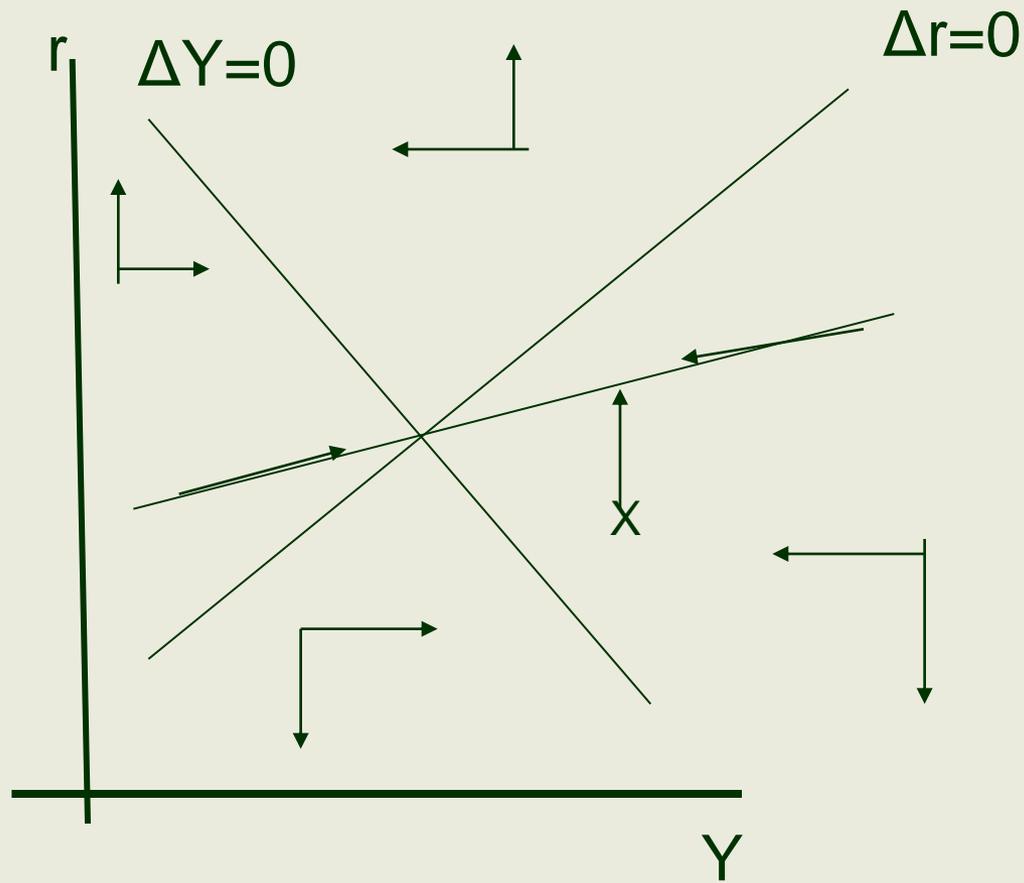
# Alternative assumptions

1. Portfolio holders do not care about staying on a non-convergent time path. They may do so, because they are short run speculators, hoping to jump off the bandwagon before the system collapses.
- Asset price bubbles will be generated, to be examined by bubble theory models.

# Alternative assumptions

2. Portfolio holders want to avoid the collapse. In case they get to a non-convergent time path, they will jump (with asset transactions they suddenly change the interest rate) on to the equilibrium (saddle point) time path.
- We will follow this assumption.

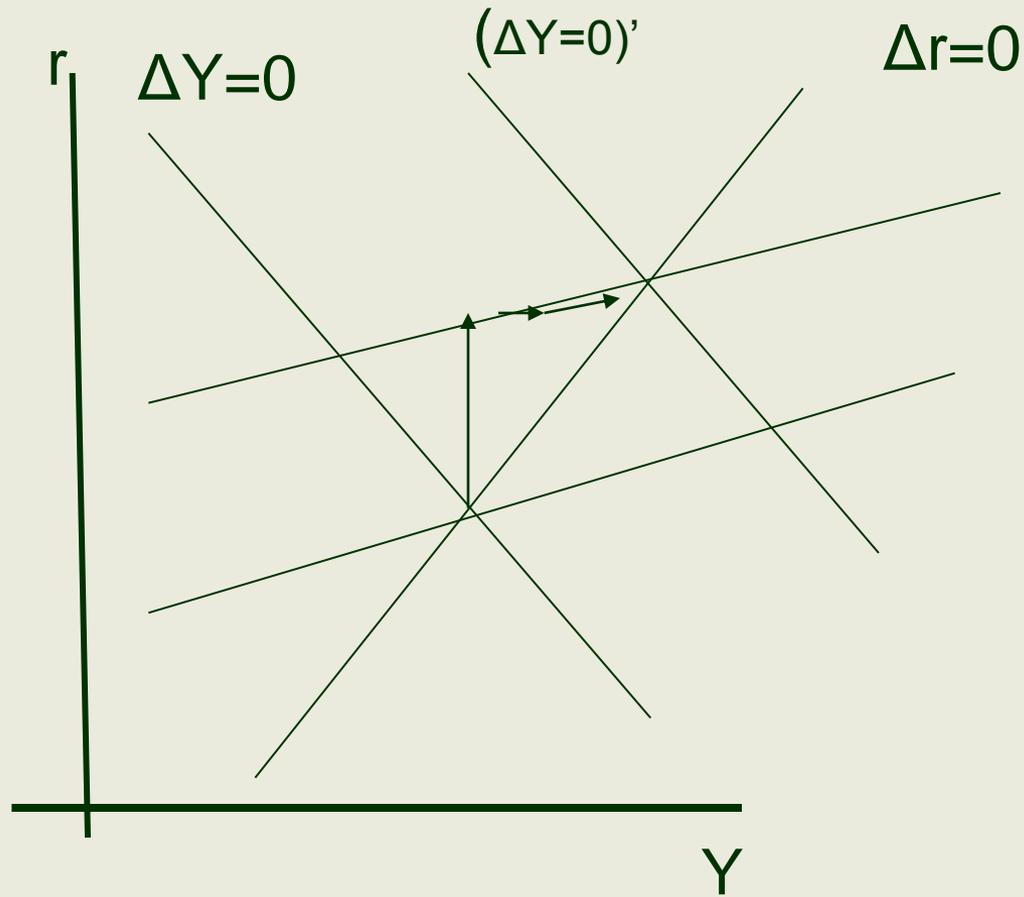
# The complete model



# Dynamics of adjustment

- Adjustment to a fiscal expansion is examined.
- Assume: the increase in  $G$  is unexpected.
- Portfolio holders with forward looking expectations cannot adjust to the fiscal move in advance, because they do not expect it.

# Adjustment dynamics



# Adjustment dynamics

- At the time when the shock happens output cannot adjust immediately. The interest rate, however, jumps up right away.
- In the long run, fiscal expansion results in higher than before interest. Forward looking wealth holders expect an increase in the rate (a decrease in the price of bonds). To avoid capital loss, they try to sell bonds now, that raises the current interest rate.
- As time passes by,  $Y$  also starts growing. Demand for money increases, that results in a further gradual increase in the interest rate.

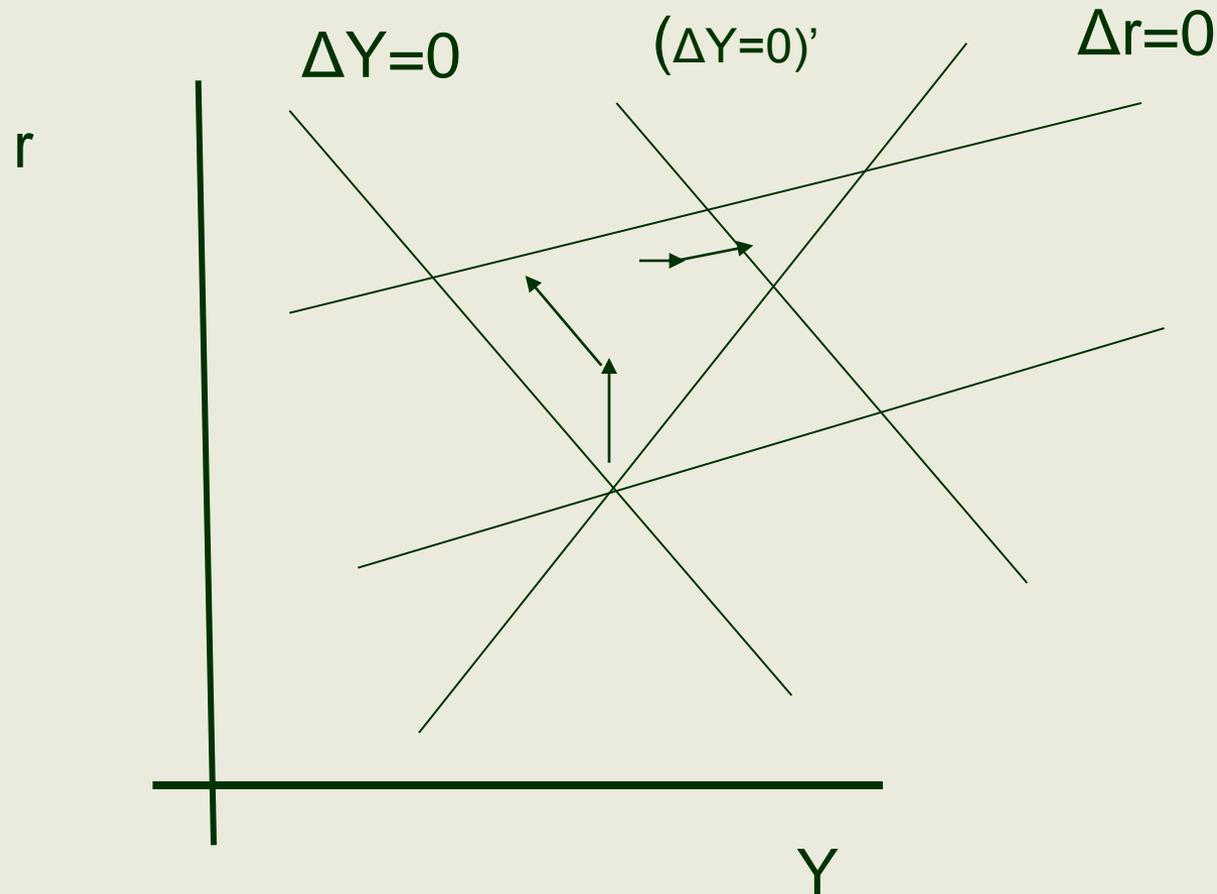
# An announcement precedes the fiscal expansion

- If the expansion is announced beforehand, then information about the future expansion comes to wealth holders much before the spending itself starts.
- What happens in the meantime? In between the announcement, and the time when government spending actually takes place.

# An announcement preceeds the fiscal expansion

- The interest rate has to increase immediately, because wealth holders know it will increase in the future. This information will be considered while making decisions about the portfolios.
- $G$ , however, does not increase for some time.
- The interest rate is higher, but the IS curve has not shifted yet.

# Adjustment to a preannounced fiscal expansion



# Conclusion

- A preannounced increase in  $G$  causes a temporary recession.
- $G$  has not increased yet, but the rate of interest is already higher.
- Loans are getting more expensive which reduces demand for investment.
- The crowding out effect of fiscal expansion precedes the expansionary effect.

# Conclusion

- The recession is temporary.
- By the time  $G$  starts growing the system reaches its saddle point path.
- (How can we prove that?)
- From that on  $Y$  and  $r$  are growing smoothly up until they reach their long run equilibrium values.

# Case study

- The 1980–81 recession in the US
- The election campaign conducted by Ronald Reagan
- An expected significant expansion in the budget spending (announcement of the star wars military program)
- Expected significant reduction in tax
- Conclusion: timing of fiscal policy actions count.

# Summary

- Summary of fiscal policy issues
- Summary of the course
- Economic policy
- Goals
- Tools
- Models
- Empirical results

# Literature

- Alesina–Perotti (1997): Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects, Staff Papers – International Monetary Fund, Vol. 44, No. 2
- Giavazzi–Pagano (1995): Non-keynesian effects of fiscal policy changes, NBER Working Paper
- Vincent Hogan (2004): Expansionary Fiscal Contractions? Evidence from Panel Data, The Scandinavian Journal of Economics, Vol. 106, No. 4

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