MACROECONOMICS

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Week 1

Introduction

Áron Horváth, Péter Pete

Introduction

- Economics: economic phenomena are to be seen as results of interrelated individual decisions
- Micro- and Macroeconomics; the difference is in the subject, not in the method
- Since the seventies, the methodology of the two fields are geting closer

Empirical orientation

- We try to explain (forecast etc.) emporically observable phenomena, theory is a tool to do that
- The concrete, the individual are too many, too variable. What we search for is the common, the general peattern
- To catch the general, we resort to simplifications and logical constructs: models

Models

- Simplified pictures of reality. They contain just as much from reality what is necessary to explain the main features of the phenomena
- If the model fits existing observations, we can use it to (out of data) experiments, forcasting etc.

Macroeconomics

- Individual decisions influence the whole economy, that is the aggregates, aggregate variables
- We define aggregate (macro) variables, decribe their movements in time, relationships an co-movements with each other
- We try to explain why things develop as they do

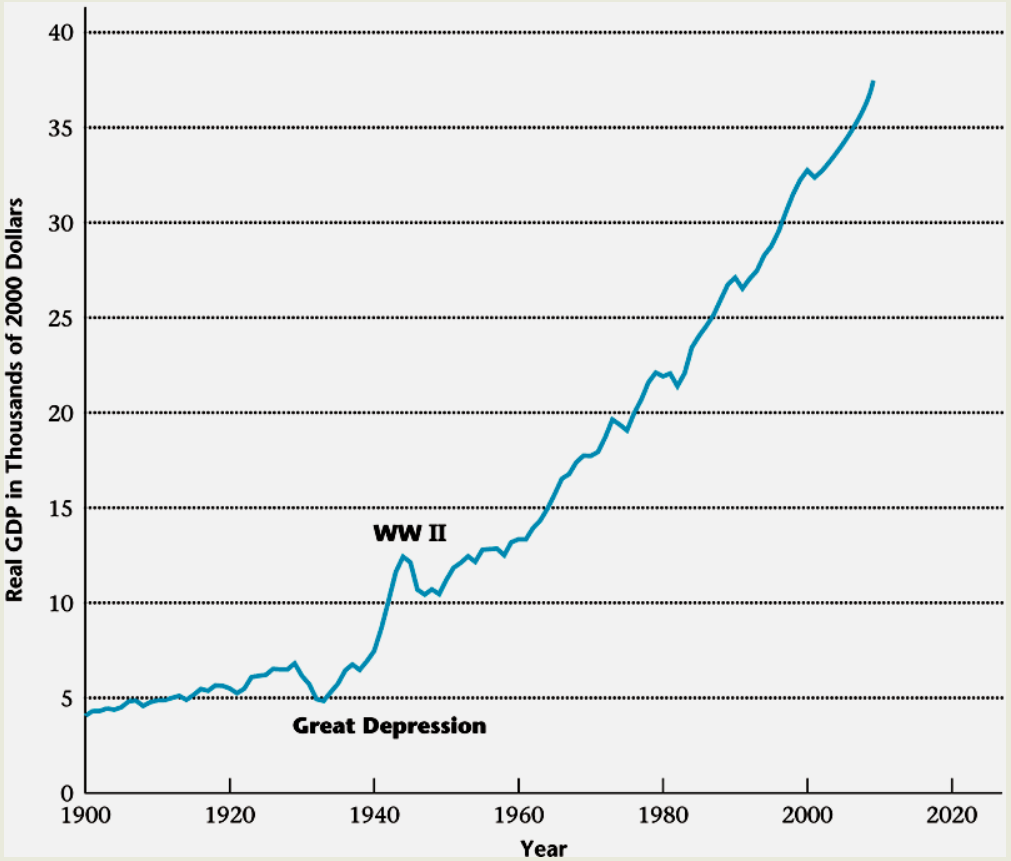
What to investigate?

- Macro phenomena are described by explaining the behavior, movements of aggregate variables
- These are (among else): output (Y), consumption (C), invetment (I), price level (P), rate of interest (r), employment (N), wages (w), money supply (M) and others

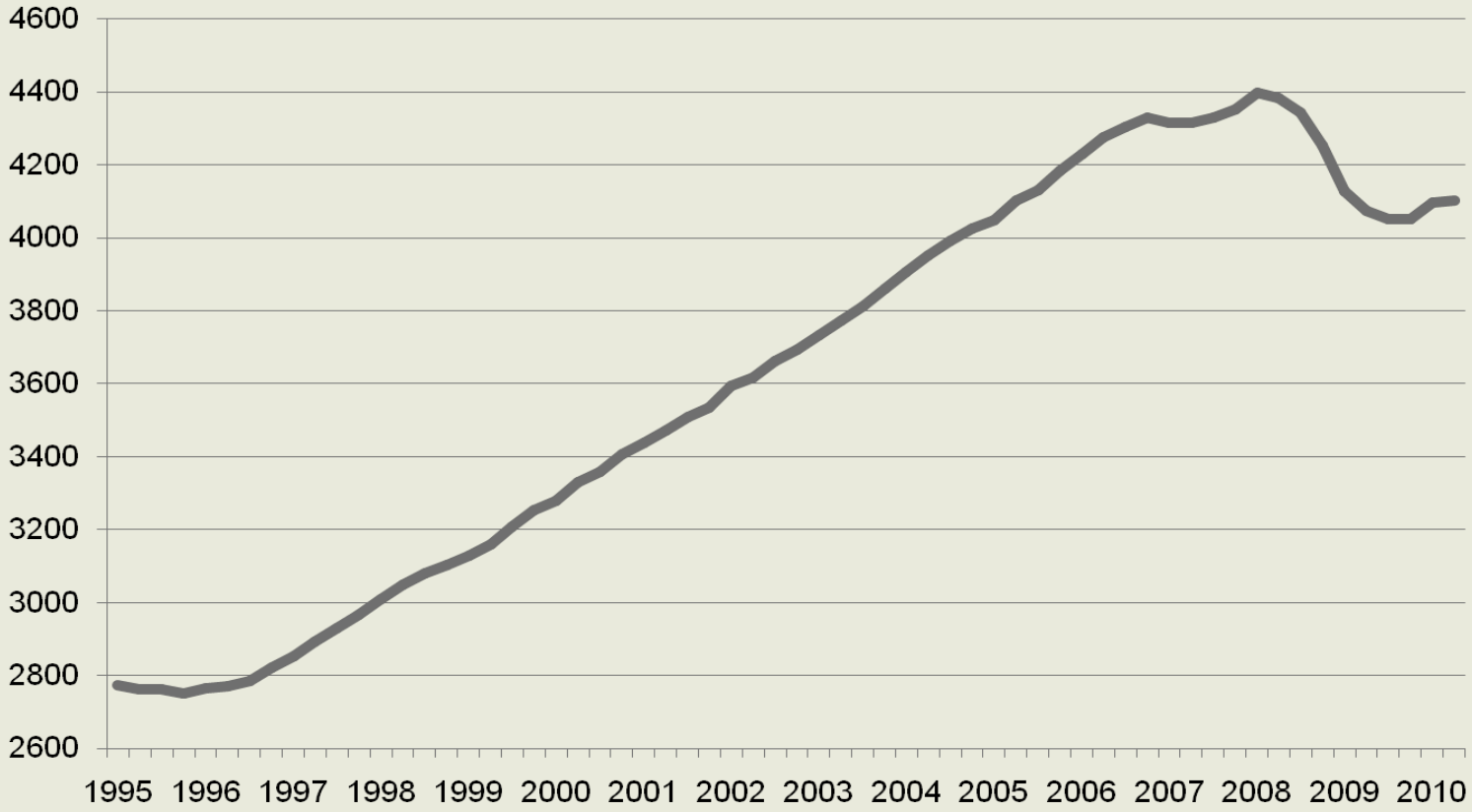
Output

- Economic growth is the longer run time movement (increase) in the national output
- In the long run most economies grow
- Business cycle is fluctuation of GDP around its trend
- Economies a characterised by recurrent ups and downs (recessions) around their trend growth path. Lenghts and amplitudes of the cycles are irregular

US GDP per capita at year 2000's prices



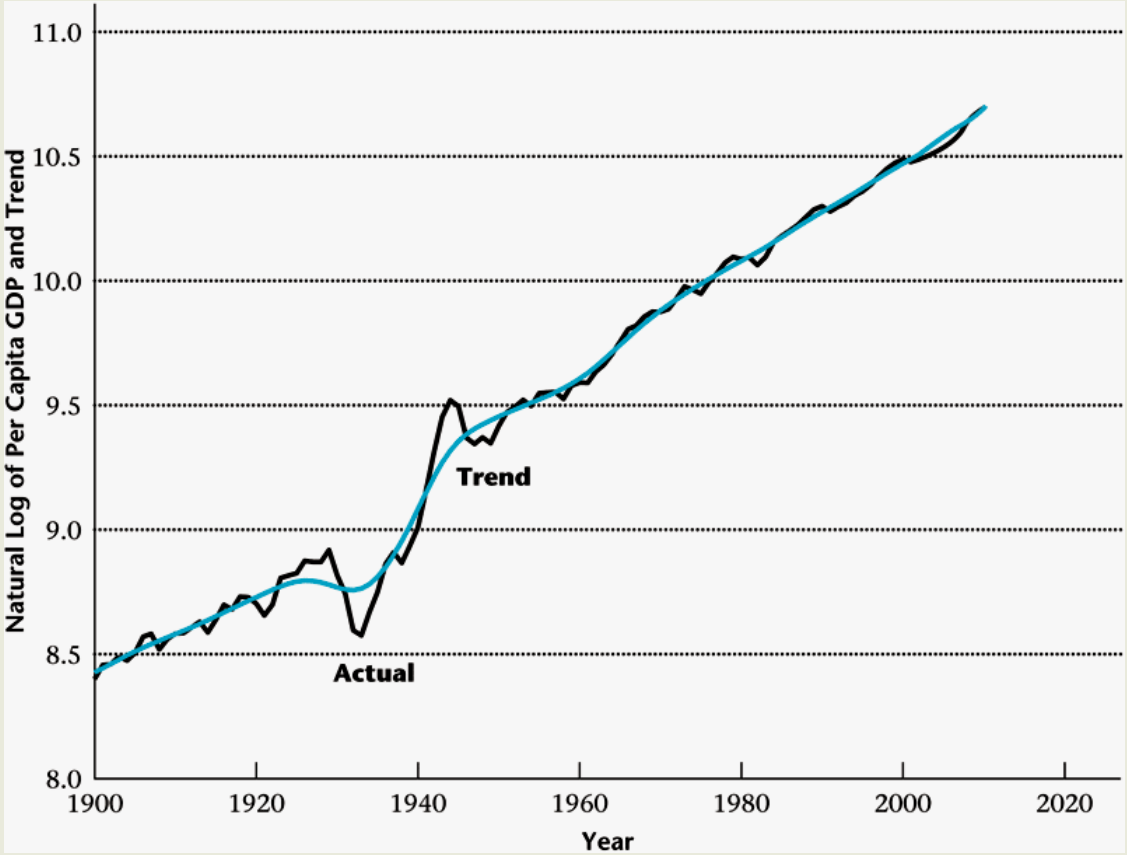
Real GDP in Hungary, billion forints, year 2000's prices



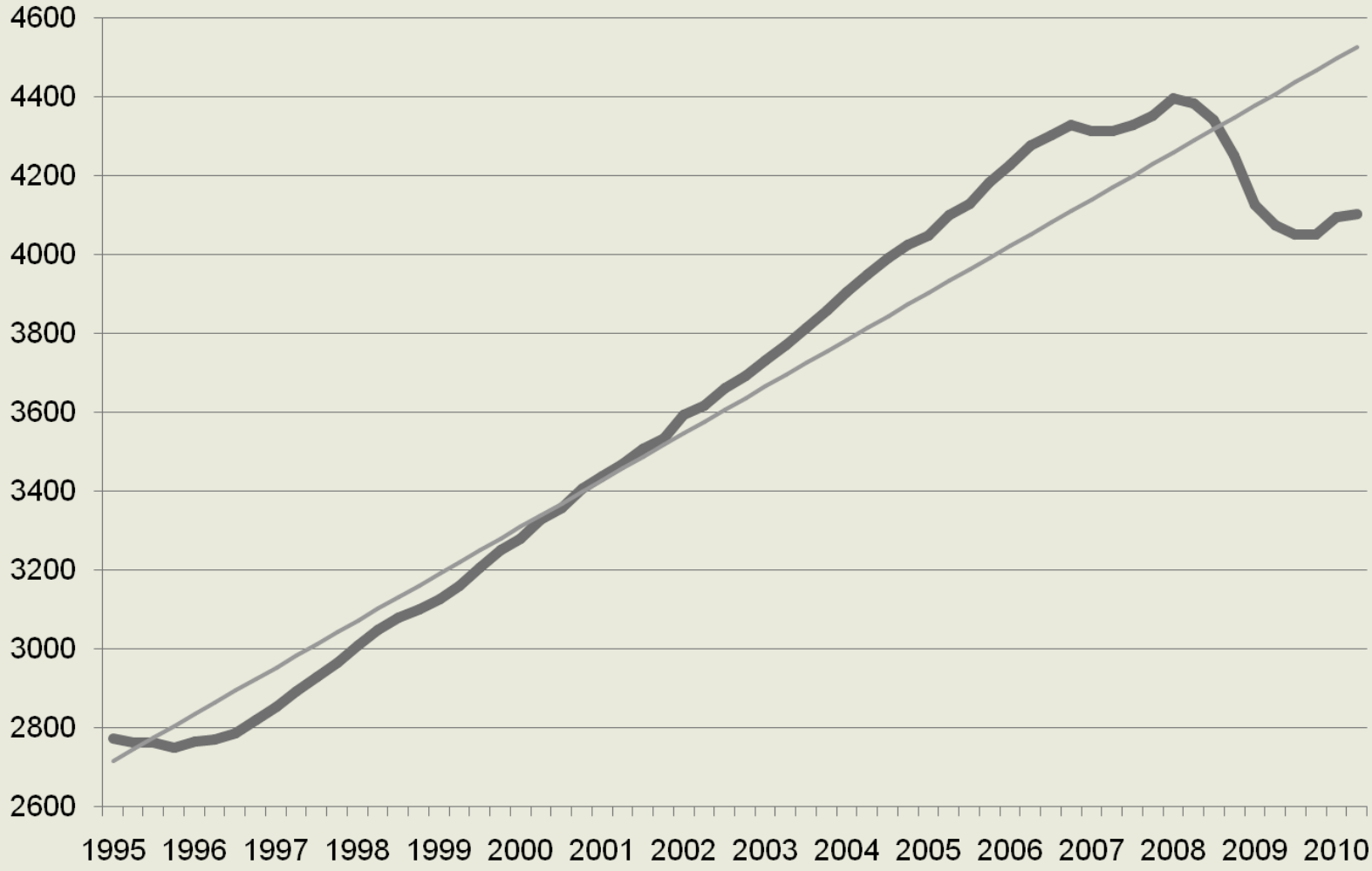
Transforming statistical data

- Growth: logarithmic transformation
- The slope of a graph showing time movement in real GDP on a logarithmic scale captures the rate of growth
- Cyclical component: percentage deviation from the growth trend

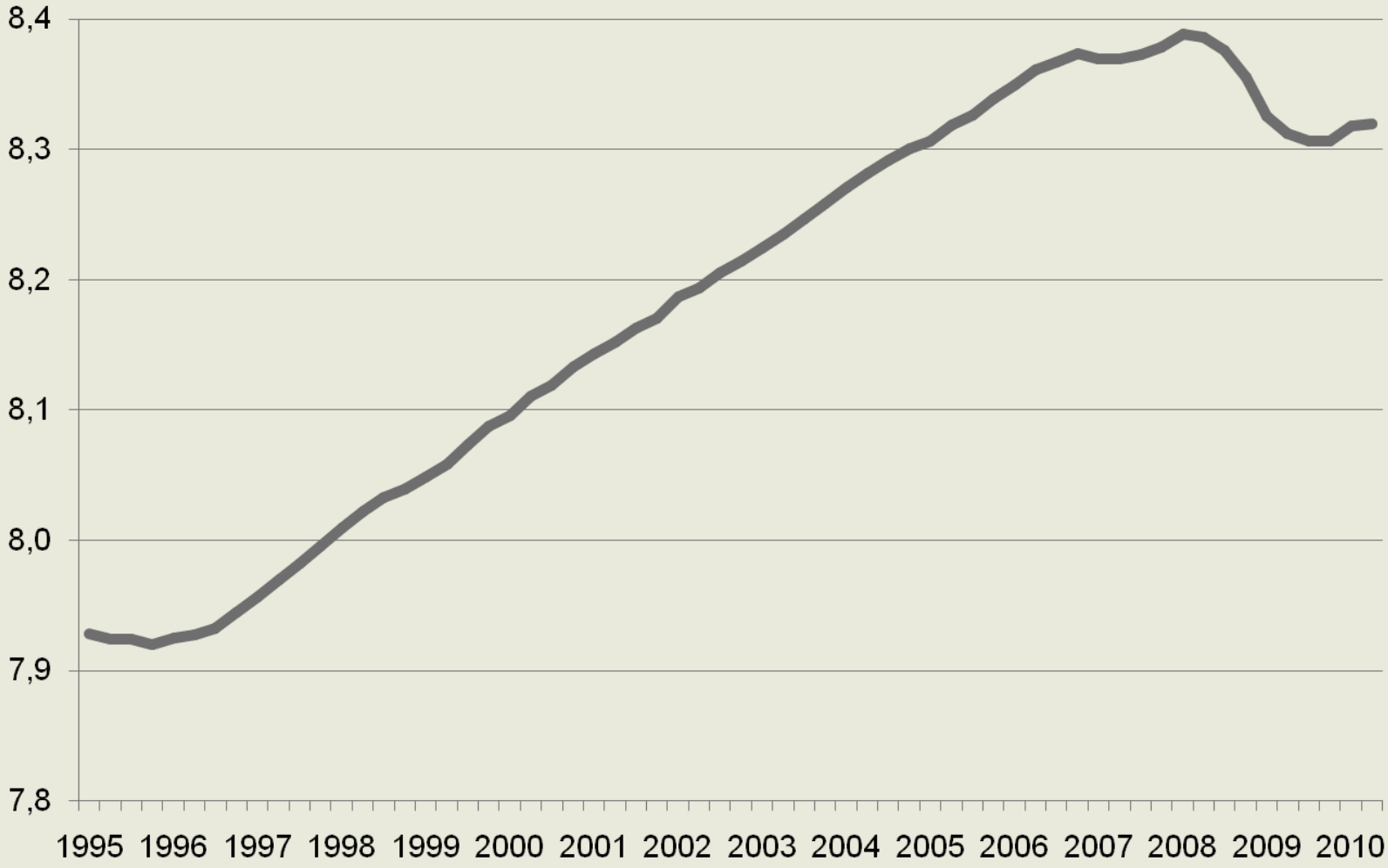
Log of US per capita GDP and trend



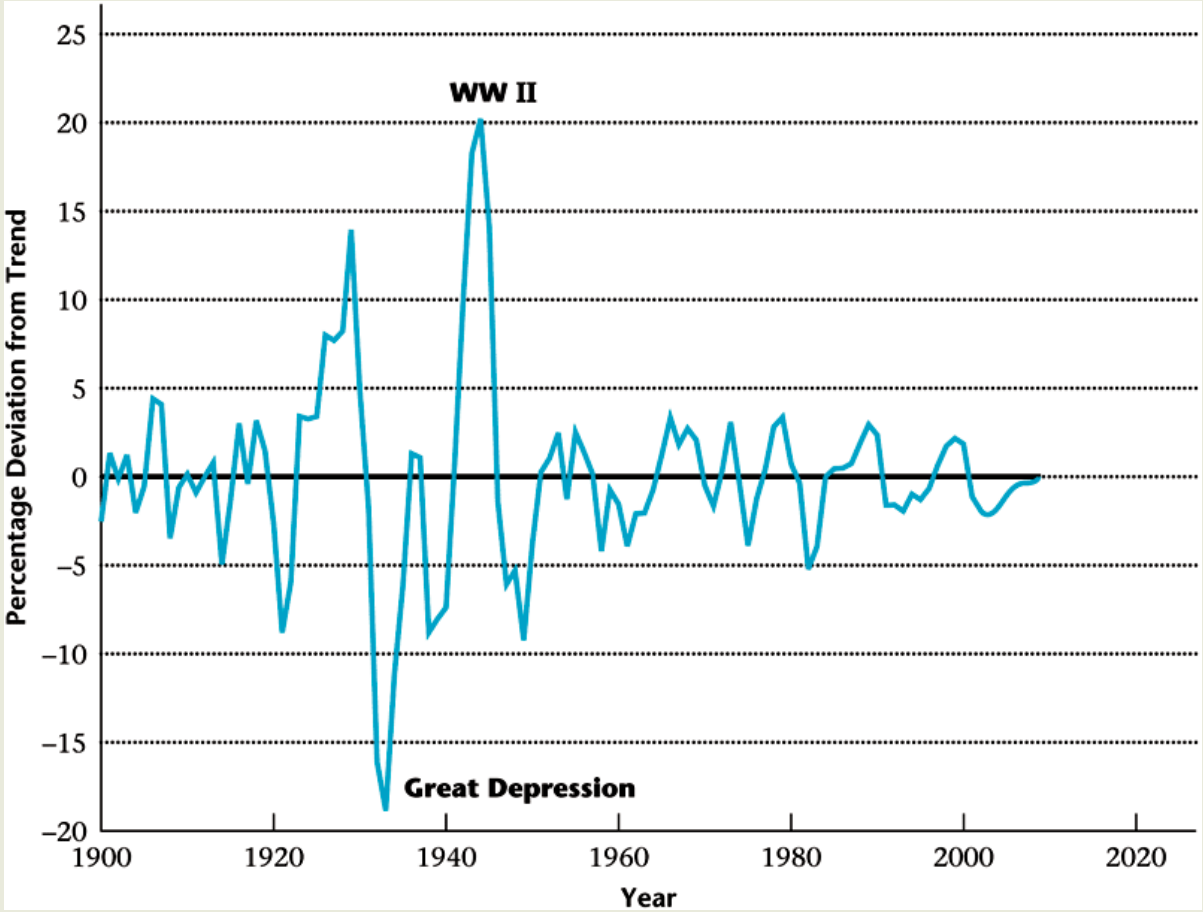
Actual and trend GDP, Hungary



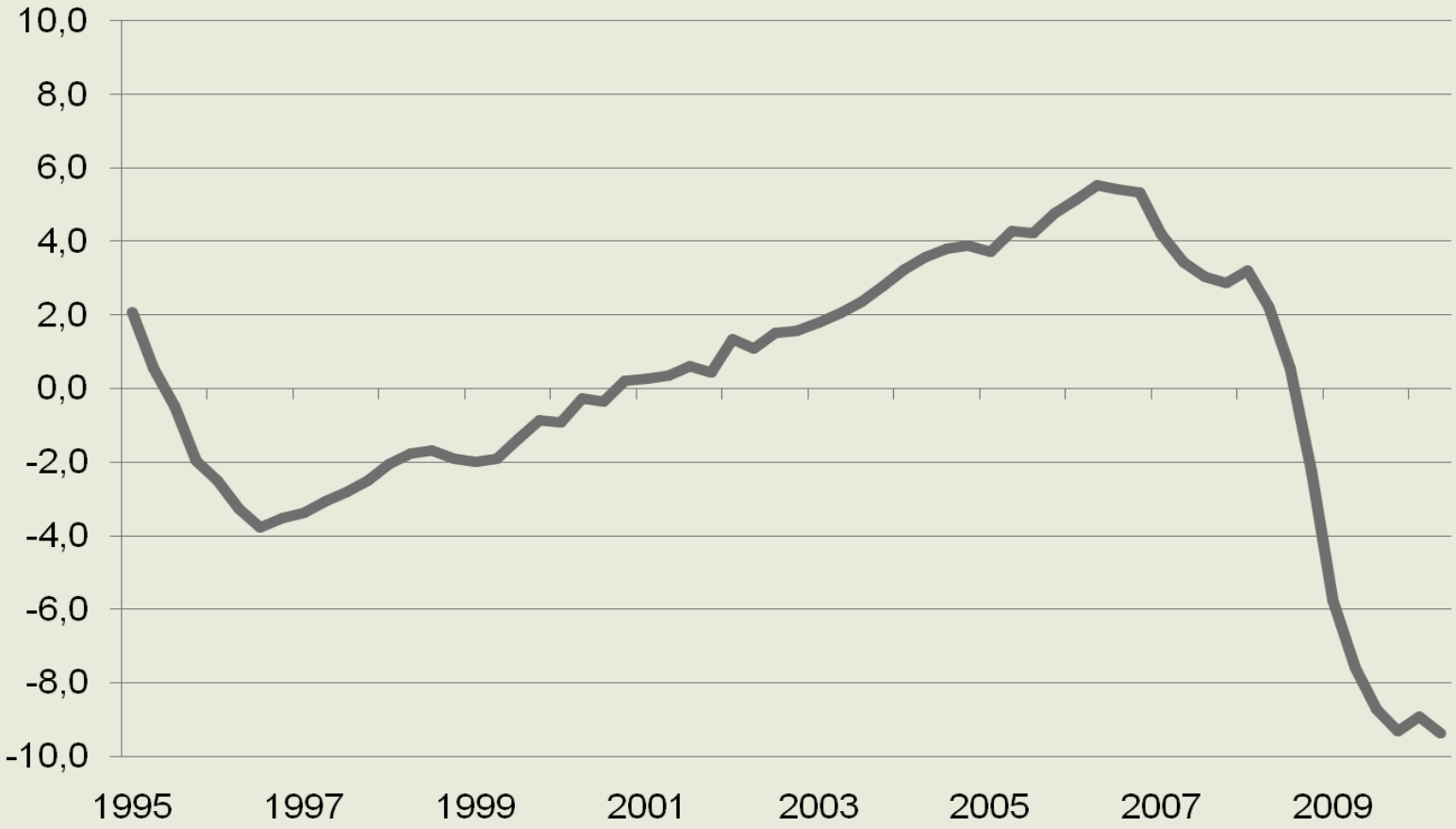
Log of GDP, Hungary



Percentage deviation from trend, US GDP



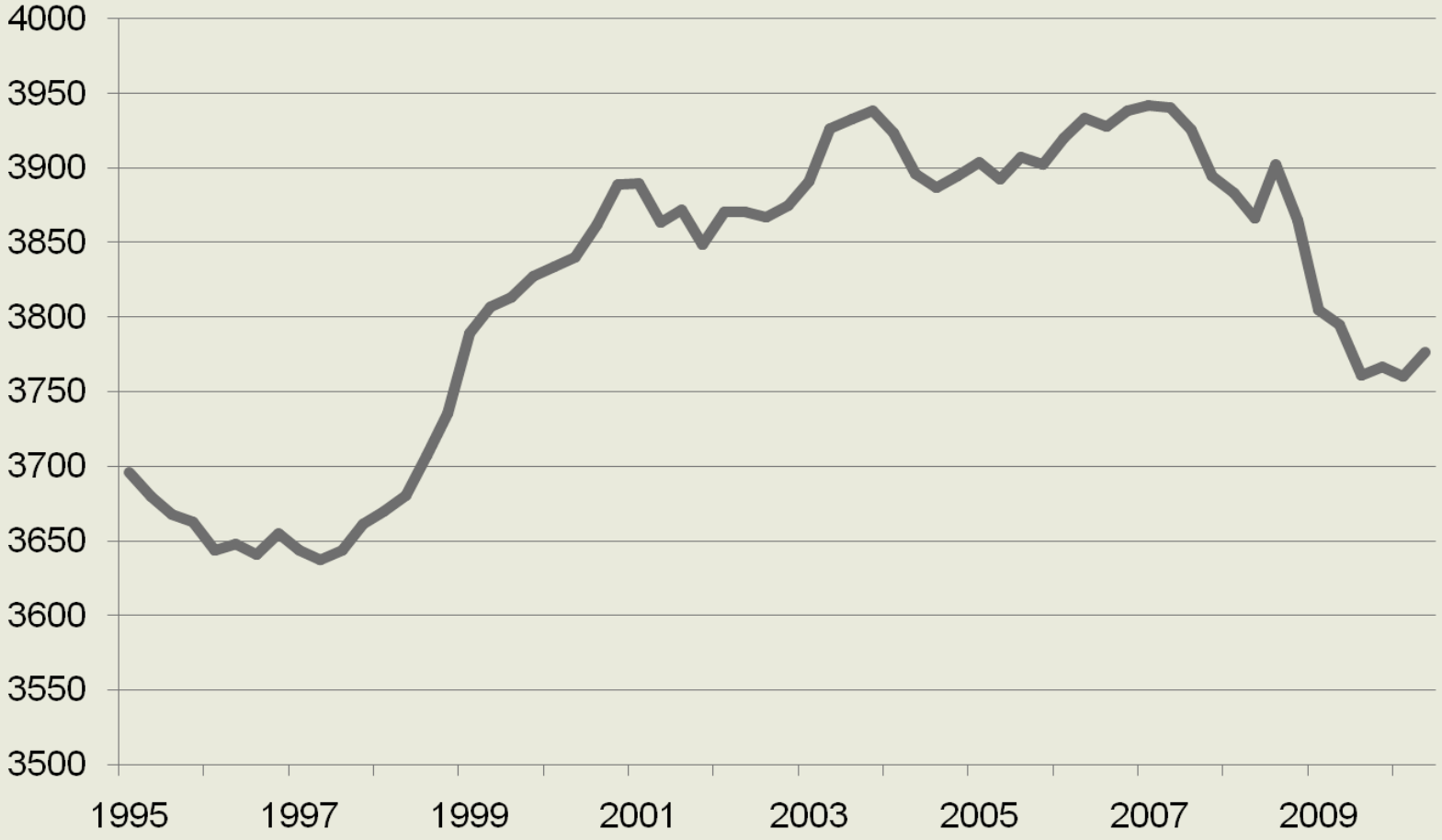
Percentage deviation from linear trend, GDP, Hungary



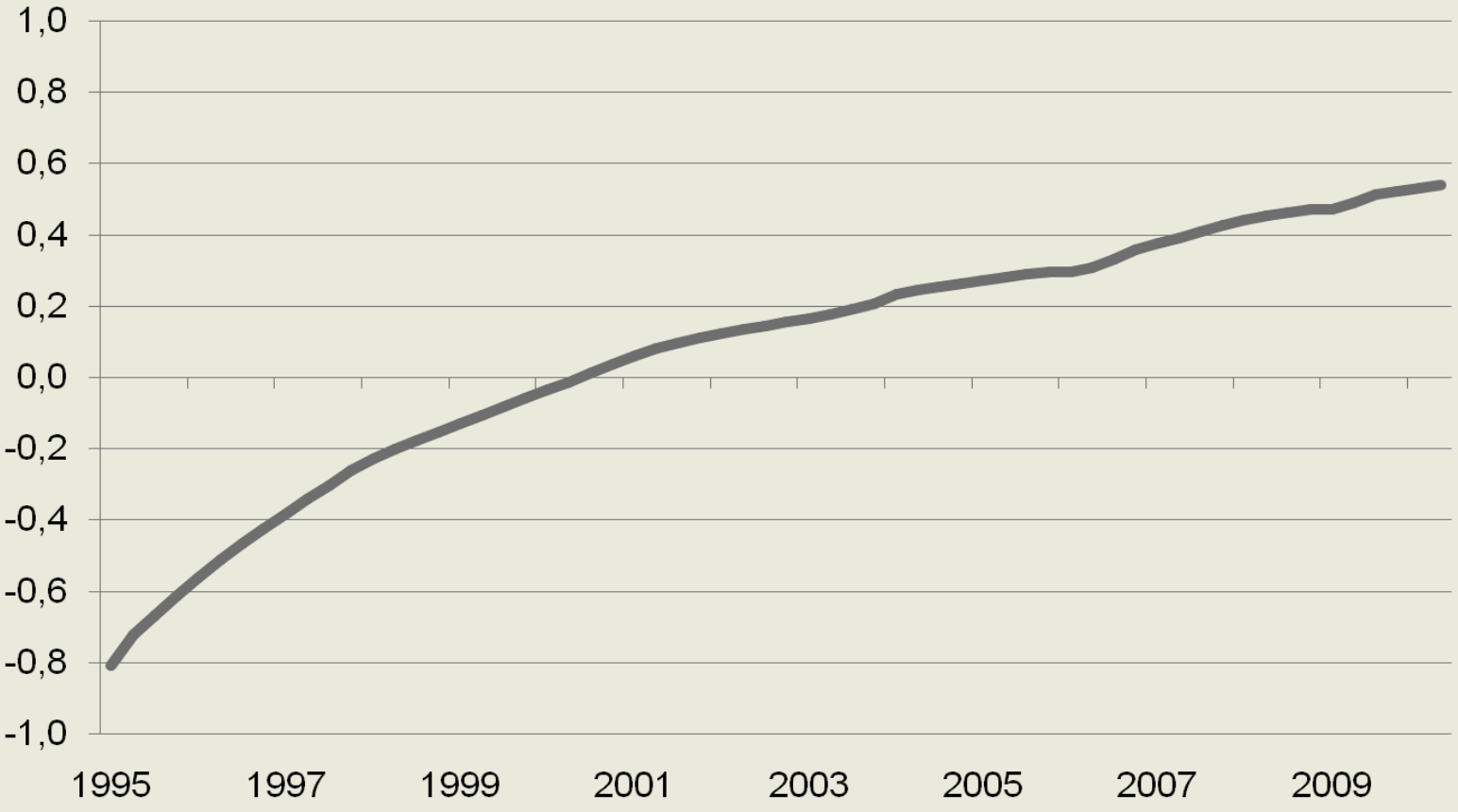
Questions

- Why do economies grow? What causes differences among countries?
- Can government policy influence (enhance) economic growth and how?
- What causes business cycles? Are cycles unique or similar?
- Can we smooth cycles? Is it worth it?

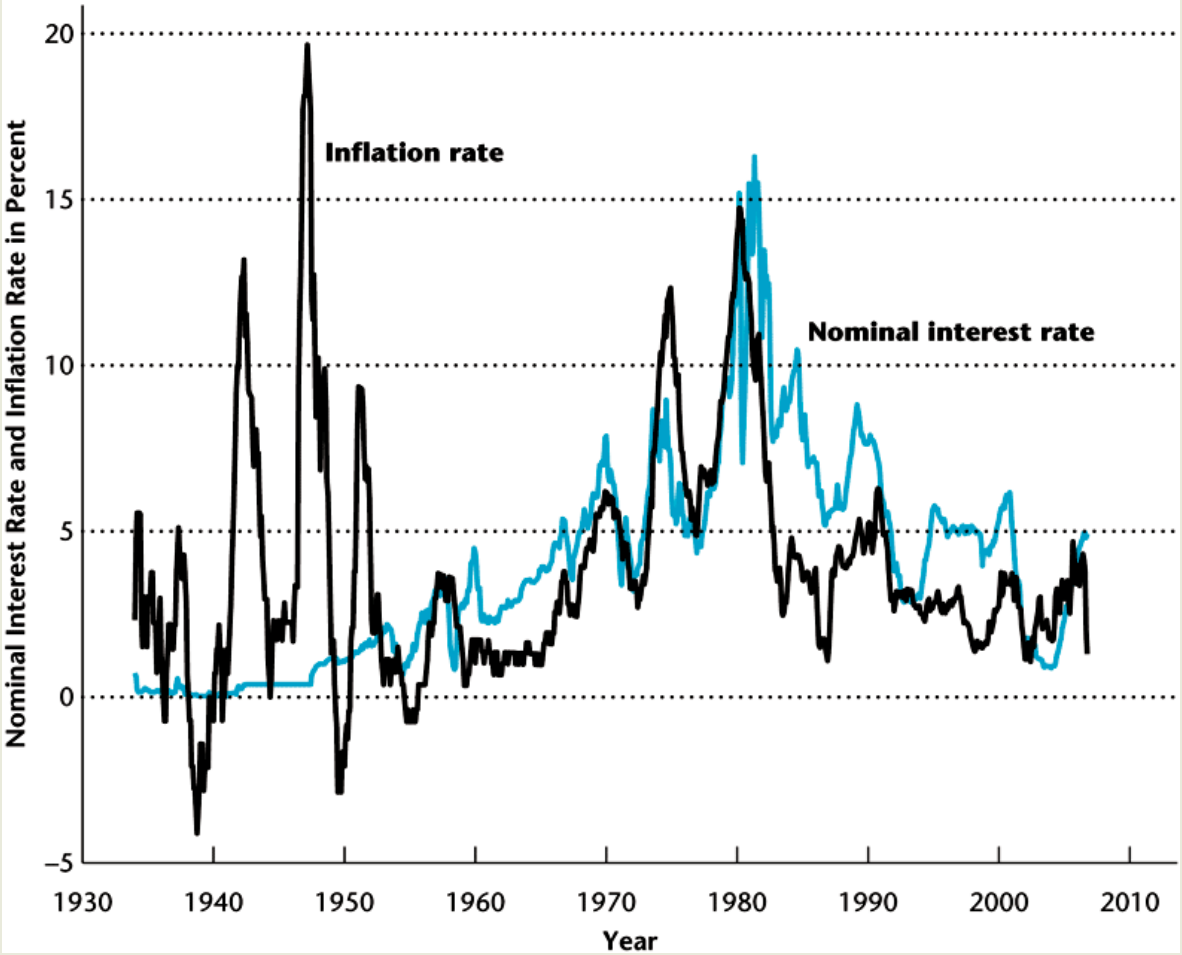
Employment in thousands, Hungary



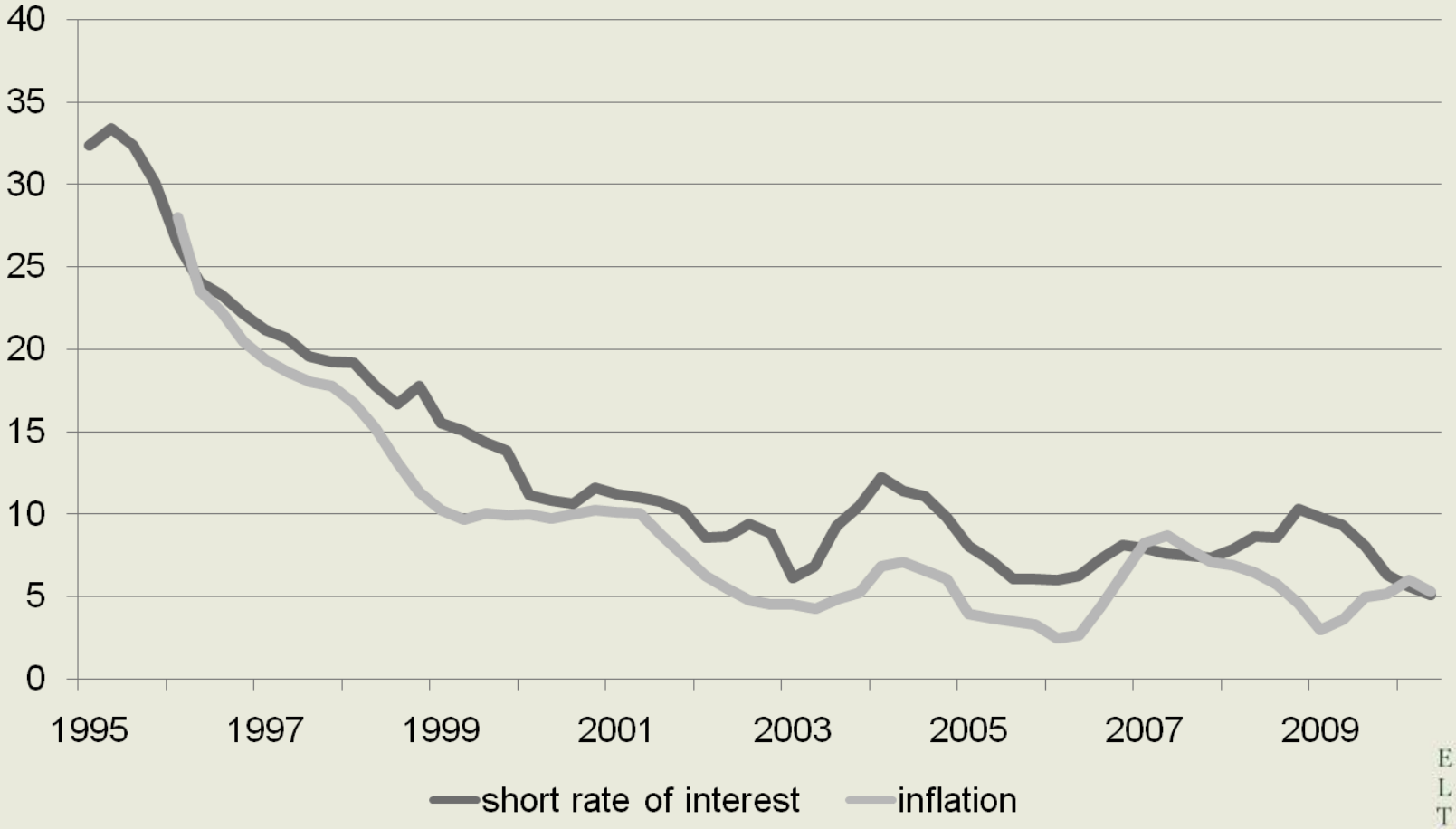
CPI inflation in Hungary, logarithmic scale



Nominal interest and inflation

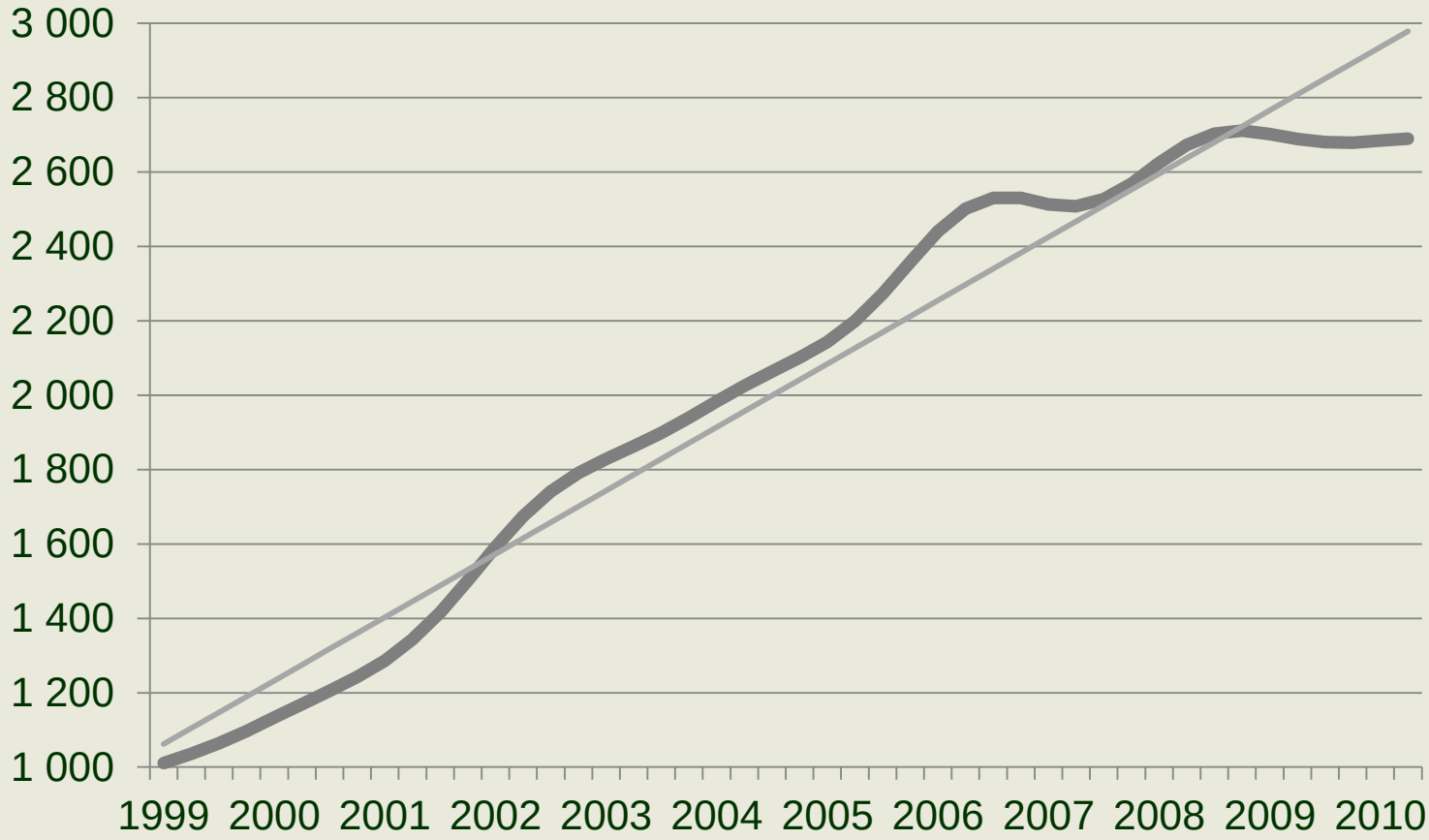


Inflation and interest rate in Hungary, percentages

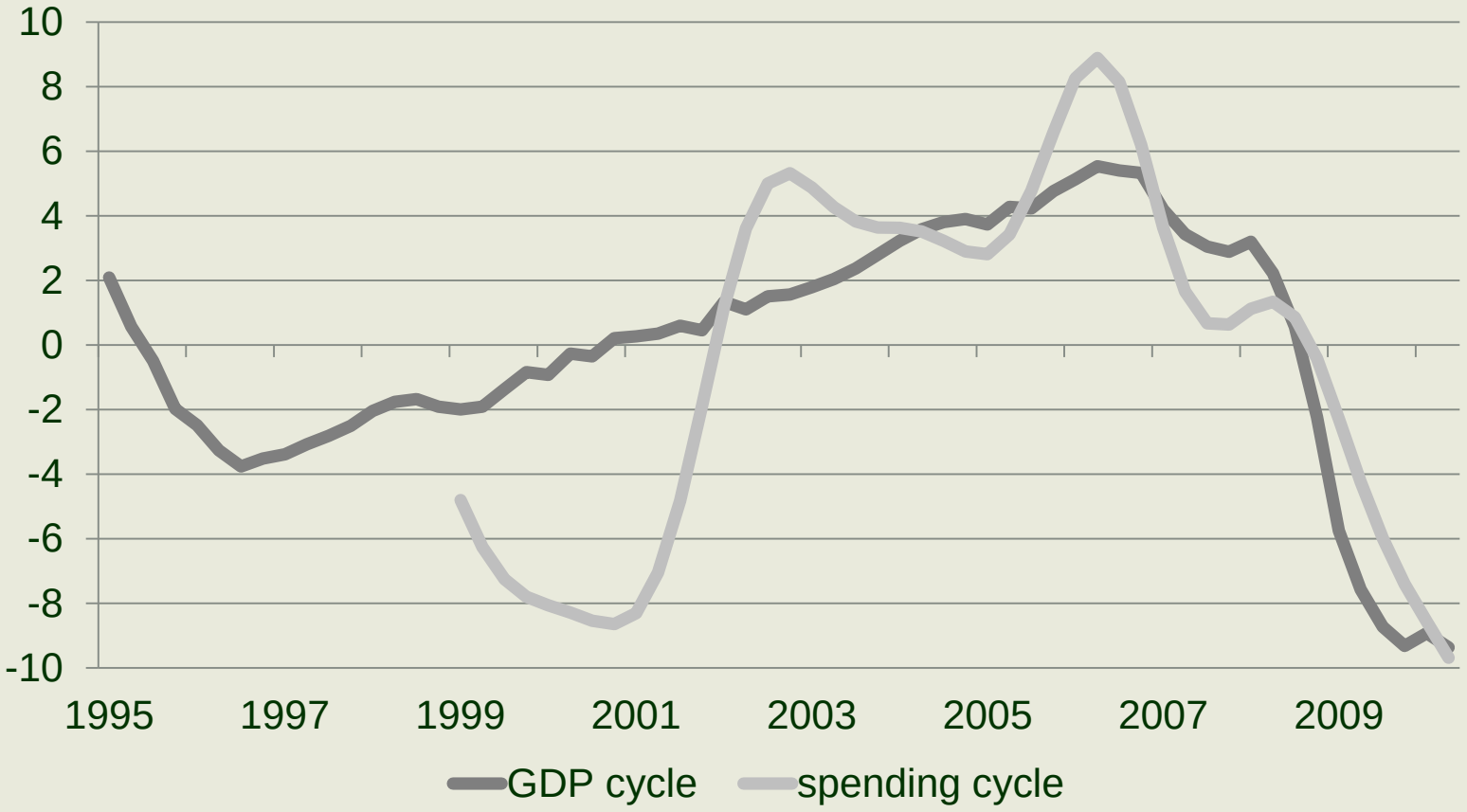


Government spending as a percentage of GDP

Government spending and its trend, billions of forints



Govetnment spending and GDP, percentage deviations from trend



Questions

- How do other macroeconomic variables behave relative to GDP in the short and the long run?
- Procyclical and countercyclical variables
- What causes these movements?
- Can we manipilate some variables in order to affect others?
- How can we do that?

Definitions for measurement

- GDP, National Income Accounting
- Production (value added) approach
- Expenditure approach
  ($Y = C + I + G + NX$)
- Income approach
- Measurement conventions (prices, government, stocks of inventories)
- Mesurement problems

Nominal and real variables, price indexes

- Nominal and real GDP
- GDP deflator
- Consimer Price Index
- Measurement problems
- Examples

Saving, Investment, Capital

- Flows and stocks

  $Y = C + I + G + NX$

  $S = Y - C - G = I + NX$

  $S = I + NX$

- In a closed economy savings have to match invesrments
- In an open economy savings at home can finance investments abroad and the other way around