MACROECONOMICS

Authors: Áron Horváth, Péter Pete

Supervised by: Péter Pete

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Week 2

Features of business cycles

Definition

- Busisness cycles are fluctuations of GDP around rtend
- Busines cycles are recurrent but irregular events, their lenght and amplitude varies wildly
- Why around trend? Why not the ups and downs in the absolute level of GDP?

Descriptive questions

- How do other macro variables relate to GDP in the process of the cycle?
- Are they procyclical or countercyclical?
- Can we explain the co- and counter movements?
- Can we forecast these movements?

Normative questions

- Fact: people do not like business cycles
- Are they really harmful? Why is that so? In what sense are they harmful? Seasons are also cycles, nobody consideres them harmful
- Canwe influence makro variables by manipulating other variables?
- Countercyclical economic policy? Is it possible? Is it worth it?

Features

- Turning points: peaks and troughs
- Frequency
- Depht or amplitude
- Downvard deviation from trend: recession
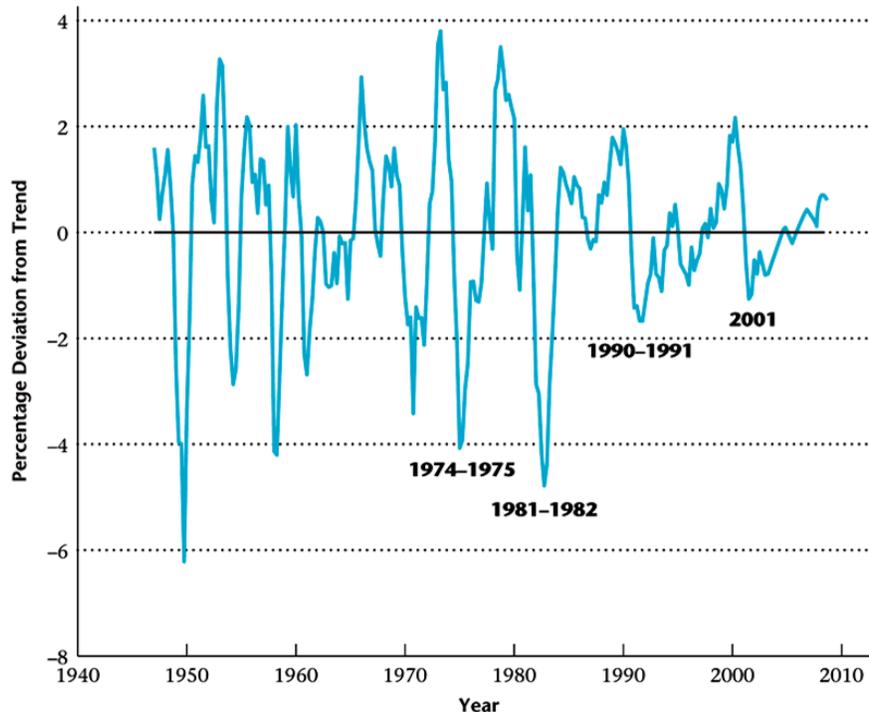- Deviation from trend upward: boom

Stylised cycle
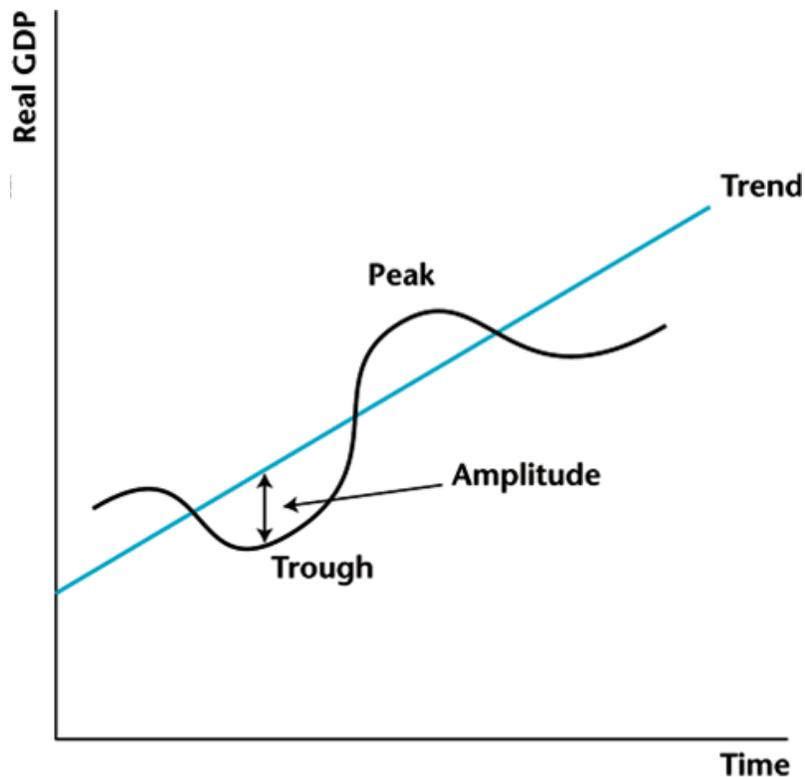
Empirical features of cycles

- Persistency
- They come quite frequently, but irregularly
- There is no reqularity in their frequency
- No regularity in the size, depht, amplitude

# Business cycle in the US

Source: U.S. Department of Commerce.

Co-movements

- Some variables move together in time. These co-movements are regular
- If percentage deviation from trend of a macroeconomic variable correlates positively with prcentage deviation from trend in GDP, than we call it a **procyclical** variable

Measuring procyclicality

- Diagrams
- Time series diagrams drawn together
- Point diagrams
- Correlation coefficients
- Question: Why do we calculate correlation coefficients in berween the percentage deviations of variables? Why not use the absolute (raw) data?

Consumption is procyclical
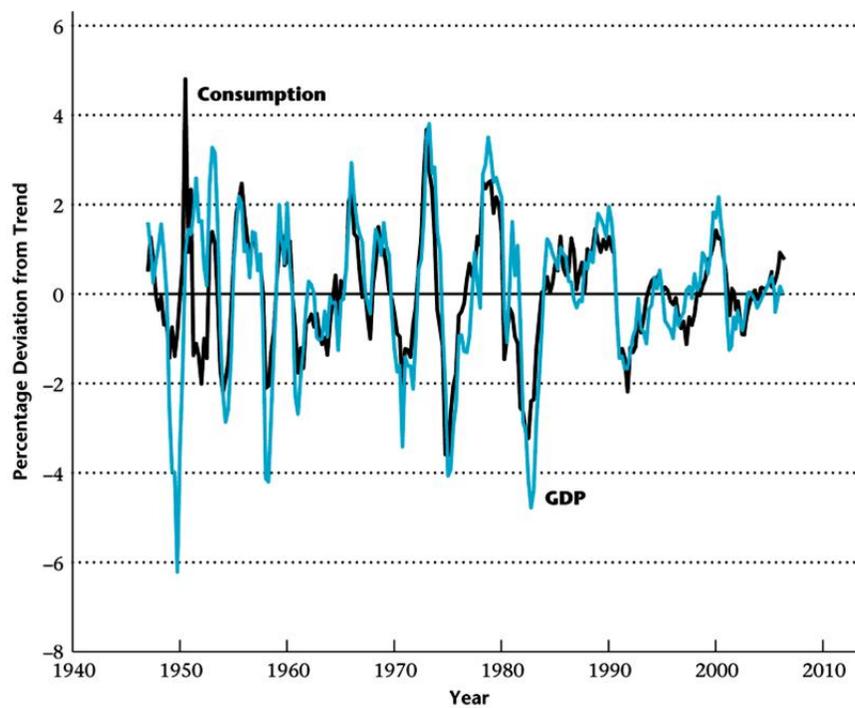
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Investment is procyclical
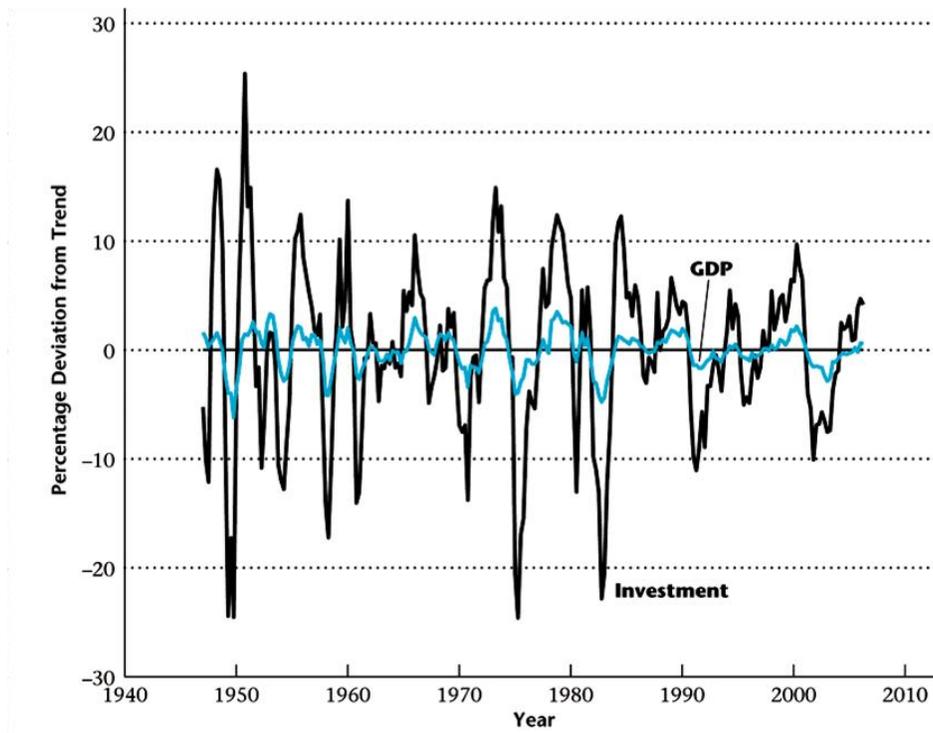
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Procyclical variables

- Consumption
- Investment
- Consumption is less volatile, investment is more volatile than GDP
- Consumption smoothing
- What explains consumption smoothing?

Labor market variables and the cycle

- Employment and real wage are procyclical
- The level and the rate of unemployment are counter-cyclical
- Long run tendencies and short run cyclical movements in labor market variables are often confused with each other in public economic policy debates. This is particularly the case in Hungary

Labor market measurements

- Working age population
- Labor force
- Employment
- Unemployment
- Participation rate
- Mesurement problems

Other features of business cycles

- Labor productivity is procíclical
- The money supply is procyclical (how to measure it?)
- Leading, laggingg and coincident variables
- Leading variable: it reaches its peak value somewhat before GDP does
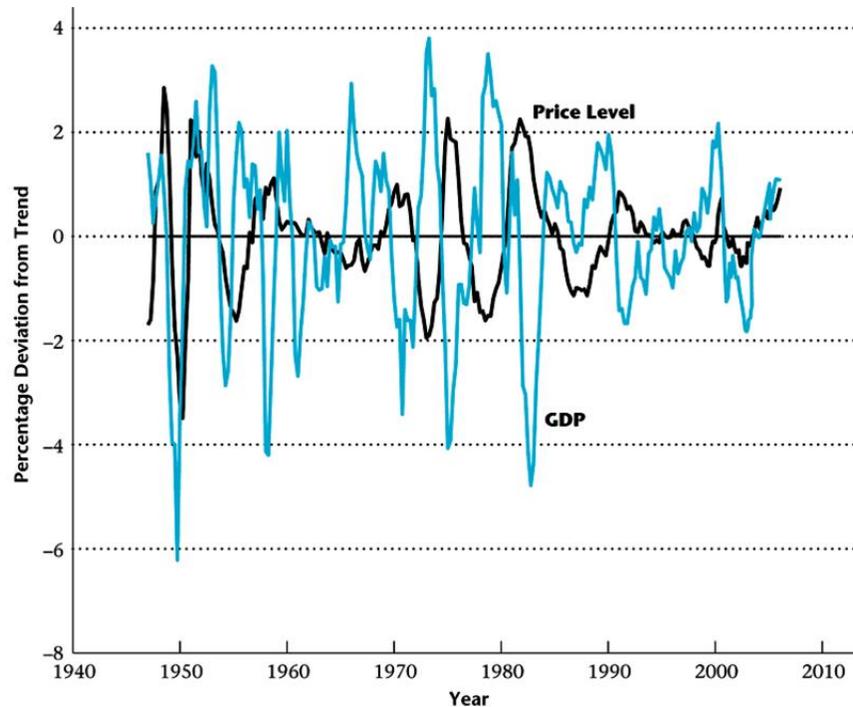- Consumption and investment are coincident variables

Leading and lagging
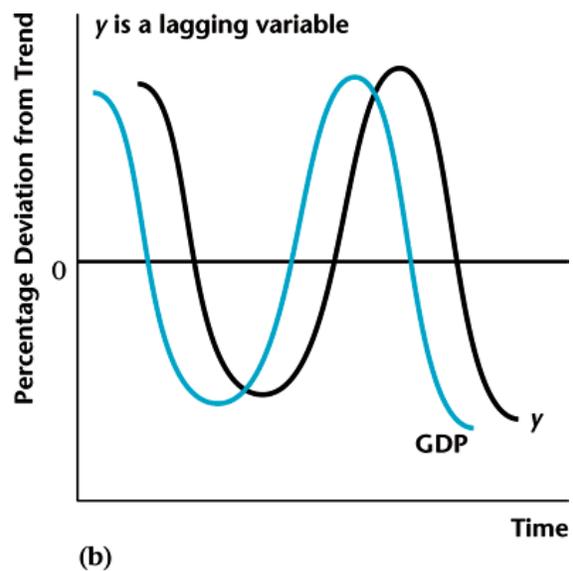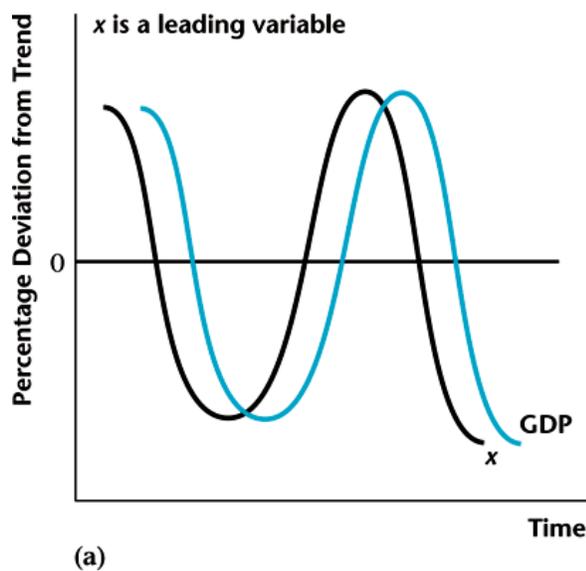
The money supply is procyclical and leading
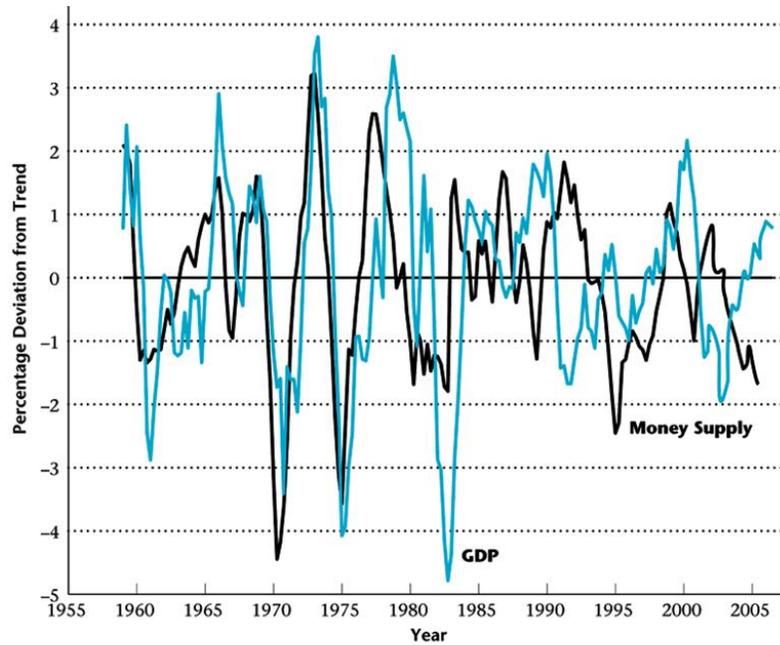
Source: U.S. Department of Commerce, Bureau of Economic Analysis, and Board of Governors of the Federal Reserve System.

The price level is counter-cyclical

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Nominal variables and the cycle

- Price level
- Rate of inflation
- The Philips curve controversy
- Philips curve: shot run negative relationship in between the rate of inflation and the rate of unemployment
- It says: inflation is procyclical

Experience of other countries

- The facts representing the cycle are more or less common among all the developed countries
- Most of the features apply for developing and emerging countries as well
- There are specialities for emerging cointries, such as the volatility of consumption

Digression

- A particularly severe recession
- Just the regular business cycle or something else?
- Reason, propagation mechanism, features
- Comparison with other recessions in this century

The course

- We build and make models to work that can explain the movements of data discussed above
- These are "base" or "generic" models
- They also serve as basis for investigating a lot of other macroeconomic phenomena, however, they had to be adjusted, some assumptions modified, refined etc.