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Macroeconomics I

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This powerpoint serves as a study material for the students of the course Introduction to economics (MEB435/MEBn5035) at FSS MU in Fall 2019. Using this presentation for other purposes without consent of the author is prohibited.

Definition

– Macroeconomics – a study of the aggregate outcomes of human economic behavior

– Issues of macroeconomics – employment, output, inflation, international context

– Goal of macroeconomics – using the available economic resources (including labor) to its full potential

– Challenge of macroeconomics

  – How to maintain full employment but at the same time achieve price stability?

  – How to encourage economic growth?

  – How to stabilize the economy?

Two approaches to macroeconomics

– Neoclassical approach (new classical, supply side, neo-Keynesian, new Keynesian)

  – Derives macroeconomic from neoclassical microeconomics by aggregating individual behavior of households and firms

  – Aggregate demand and supply

  – Full employment considered to be the norm (natural level of unemployment)

  – Emphasizes the self-regulatory tendencies of the market economy

– Heterodox (post-Keynesian, institutionalist, Marxist)

  – Places monetary arrangements to the center of the analysis (M-C-M)

  – Emphasizes compositional fallacies

Heterodox approach

- Marx, Keynes, the Great Depression
- **Fallacy of composition**
  - Errors in logic that arise when we infer that something, which is true at the individual level, is also true at the aggregate level
  - Government vs household financial constrains
  - Outcomes of government vs household increase in saving on the economy (paradox of thrift)
- **At the aggregate level, total spending equals total income and total output**
- The role of the government

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Tools of macroeconomic policy

– **Fiscal policy**

  – is represented by the spending and taxation choices made by the government.

  – is one of the major means by which the government seeks to influence overall spending in the economy and achieve its aims.

– **Monetary policy**

  – usually the responsibility of the central bank

  – setting of a short-term policy target interest rate

  – operating the interbank clearing mechanism acting as lender of last resort (to stop bank runs)

  – regulating and supervising the banks.

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National accounts

- – Gross Domestic Product (GDP) - the measure of all currently produced final goods and services evaluated at market prices.
- – Limits of GDP
  - – Unpaid work (housework, raising children, small farmers etc.), black market
  - – GDP and economic well-being
  - – Inequality
- – Alternatives to GDP -> HDI
- – Country comparisons
  - – GDP per capita × total GDP
  - – Purchasing power parity (PPP) × nominal (at market exchange rate)

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Components of GDP

– ## Consumption (C)

  – Domestic consumption by households of goods and services

– ## Investment (I)

  – Capital investment by firms, inventory investment by firms, and real estate investment by households

  – Investment expenditure increases the productive capacity of the economy and expands what we think of as **potential GDP**

– ## Government spending (G)

  – Government purchases of final goods and services (government transfer payments are not included)

– ## Net Exports (NX or X - M)

  – Exports (X) are goods and services sold abroad; imports (M) are goods and services produced abroad for domestic use

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Ways to measure GDP

- Expenditure approach
  - the sum of final expenditures on goods and services measured in current market prices.
  - Y = C + I + G + (X − M)

- Production approach
  - This approach measures gross value added.
  - Value added in the production = gross value of output – value of intermediate consumption, which has been summed over all stages of production.

- Income approach
  - Sum of primary incomes distributed by resident producers of goods and services.
  - This method adds together the producers' incomes that firms pay in exchange for their services, namely wages for labor, interest for capital, rent for land and profit for capitalists.

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GDP versus GNP

– **GDP** is the total value of goods and services produced within a nation regardless of the ownership of the firm producing them.

– **GNP (Gross National Product)** is the total value of goods and services produced by residents of the nation regardless of the location of the production

– Measuring Gross National Income (GNI)

  – the perspective of what can be done with income (Y): an individual can consume (C) it, pay taxes (T), or save it (S)

  – Y = C + S + T = GDP = C + I + G + NX

Balance of payments

- Accounting accord of all monetary transactions between a country and the rest of the world
- The sum of all accounts has to be equal 0 by definition
- Composition (IMF × USA!)
    - Current account – trade + factor income
    - Financial (capital) account (including the reserve account) – net change of ownership of international assets
    - Balancing item (statistical errors)
- Relations between individual accounts
- Net international investment position
    - Accumulated CA, asset price changes, currency moves

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Balance of payment statistics (in millions of CZK)
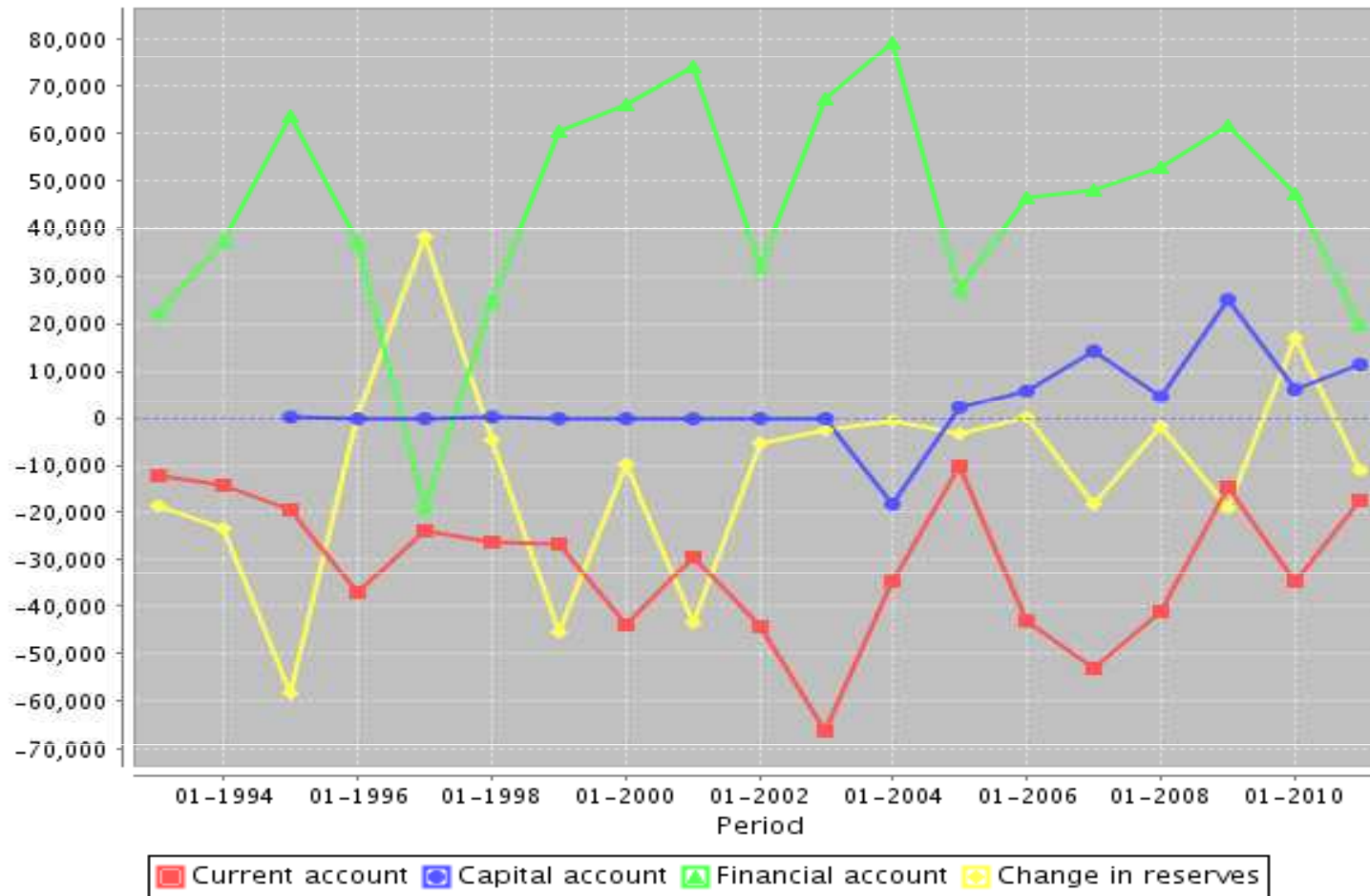
Source: The Czech National Bank

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Net international investment position (% of GDP in 2014)

Switzerland	119,6	United States	-39,7
Japan	74,8	Slovakia	-70
Germany	36,4	Spain	-94,5
China	17,1	Ireland	-106,7
Russia	16,7	Portugal	-111,6
CZ	-35,6	Greece	-121,9

Source: IMF

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GDP Growth and the Price Deflator

– Measuring economic growth

  – The growth of GDP over time

  – The GDP is measured at current prices (nominal GDP)

  – Problems with rising prices

– "Deflate" GDP - to correct our measure for the change in prices to get an idea of real economic growth.

– Example:

  – $GDP_{2002} = P_{2002} \times Q_{2002}$

  – $GDP_{2015} = P_{2015} \times Q_{2015}$

  – We always calculate 'real GDP' over time in terms of a base year.

  – $RGDP_{2015} = P_{2002} \times Q_{2015}$
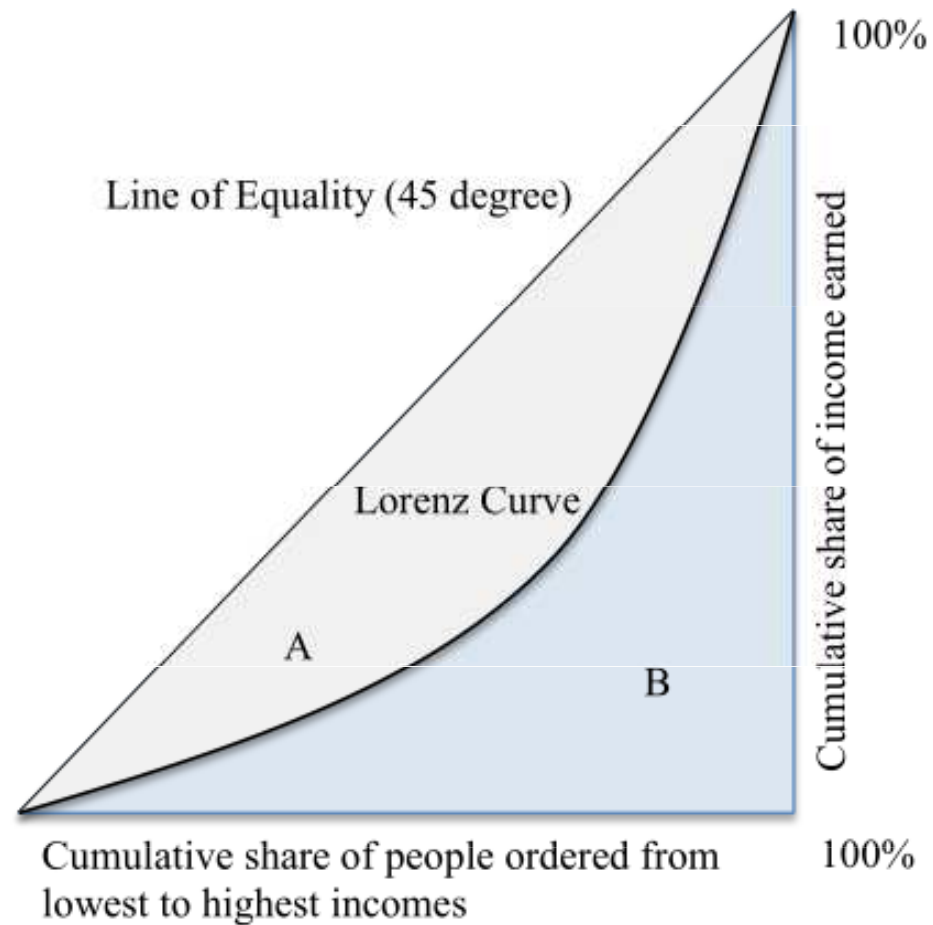
– Problems with the method

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Measuring CPI inflation

– CPI: An index based on the cost of a fixed basket of consumer goods and services.

  – Consumer goods and services, and their respective quantities (weights).

  – It is assumed that the chosen basket of goods and services is representative of the purchases made by a typical household.

  – Base year.

– Rate of growth of the CPI index

  – The growth rate of the CPI measures the rate of inflation (if positive) or deflation (if negative).

– Other indexes.

Measuring National Inequality

– **Gini Coefficient** – measures the distribution of income in the population.

– The **Lorenz Curve** plots the share of total income received (vertical axis) by the lowest X per cent of income earners (horizontal axis).

– The 45-degree line shows the case of perfect equality.

– A Gini Coefficient of zero means that income is perfectly equally distributed as the economy is lying on the Line of Equality.

– Alternatively, a Gini coefficient of one means that income is perfectly unequally distributed (that is, one person has all the income).

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The Lorenz curve

Line of Equality (45 degree)

Lorenz Curve

A

B

Cumulative share of income earned

100%

Cumulative share of people ordered from lowest to highest incomes

100%

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Gini coefficient in the world

Gini Index
(Income equality = 0)

- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 66
- No data

Source: M Tracy Hunter

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