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Macroeconomics I

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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

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.

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)

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

Ways to measure GDP

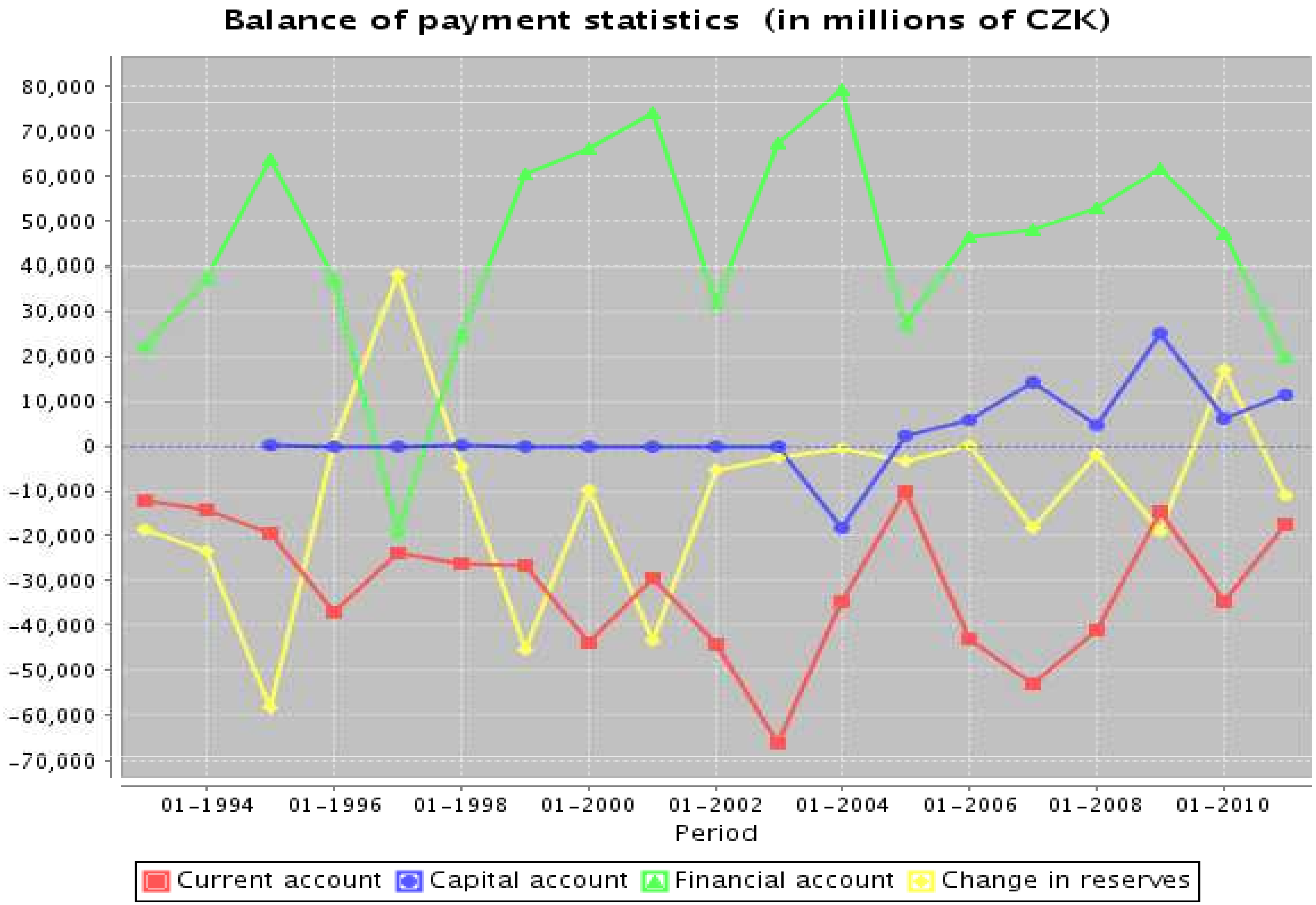
- Expenditure approach
  - the sum of final expenditures on goods and services measured in current market prices.
  - $Y = C + I + G + (X - M)$
- Production approach
  - This approach measures gross value added.
  - Value added in the production = gross value of output – value of intermediate consumption, 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.

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



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

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

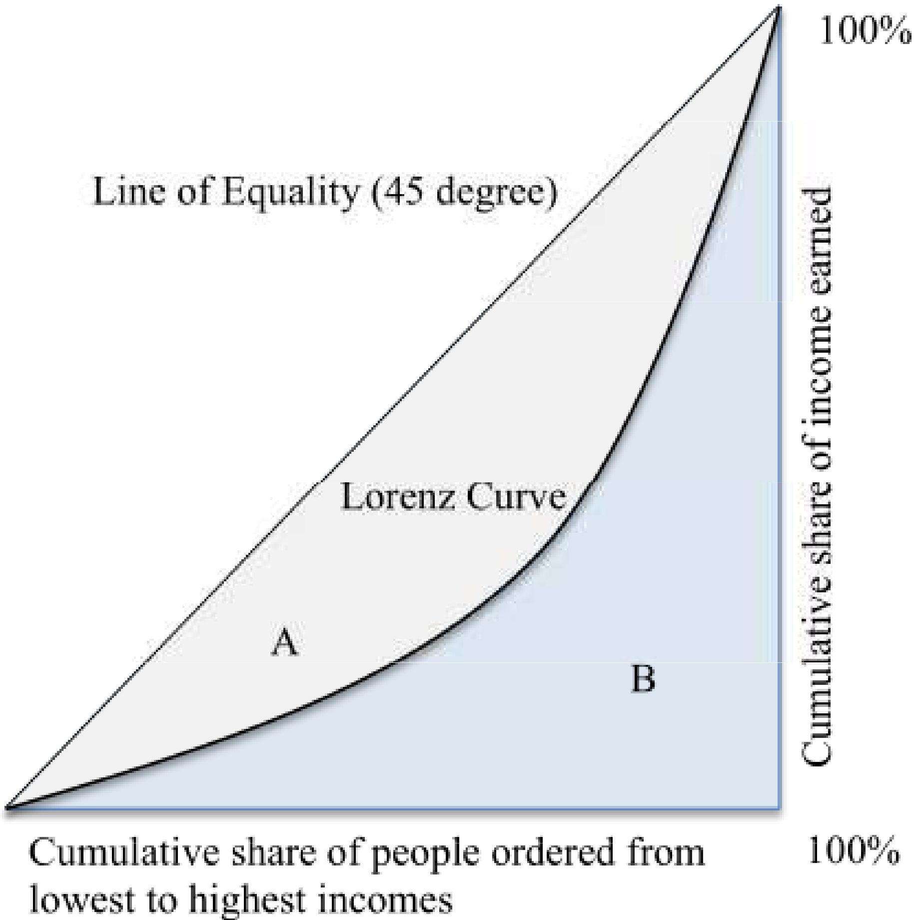
Measuring CPI inflation

- 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.

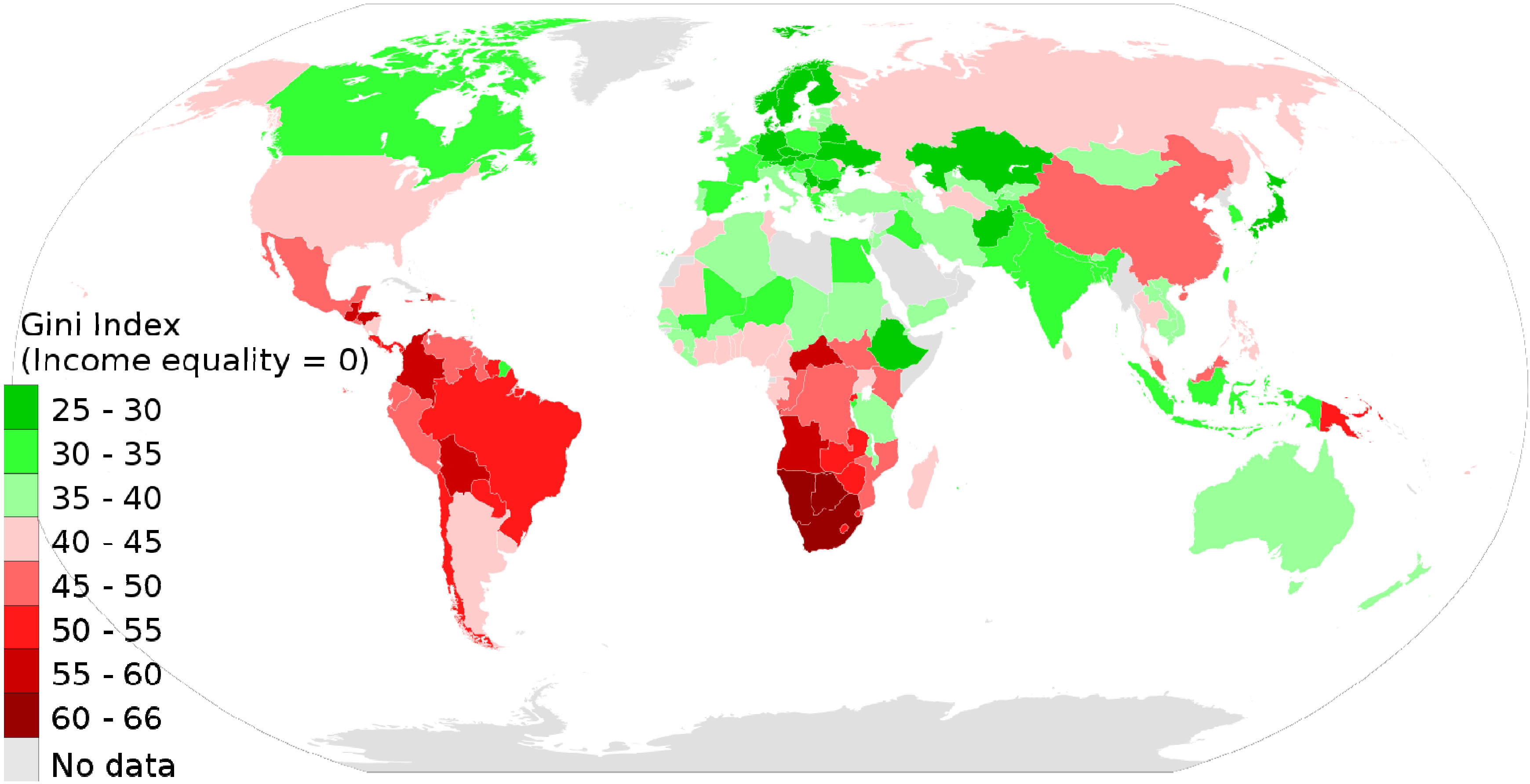
Measuring National Inequality

- **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).

The Lorenz curve



Gini coefficient in the world



Source: M Tracy Hunter