

ECONOMICS

for South African students

Macroeconomics

Measuring the performance of the economy

Measuring the performance of the economy

- *Criteria and main indicators*
 - economic growth (GDP)
 - full employment (unemployment rate)
 - price stability (CPI)
 - external stability (balance of payments)
 - income distribution (Gini coefficient)

Gross domestic product (GDP)

- **Definition**
- **Elements of definition**
 - value (expressed in money terms)
 - final goods and services, value added (to avoid double counting)
 - geographic aspect (within country's boundaries)
 - current production (during a particular period)
 - gross (no provision for depreciation, consumption of fixed capital)

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- **Three approaches to calculating GDP**
 - production method (value added)
 - expenditure method (final goods and services)
 - income method (incomes of the factors of production)

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GDP: valuation at factor cost (or income), basic prices and market prices

Differences due to indirect taxes and subsidies

Indirect taxes = taxes on products + other taxes on production

Subsidies = subsidies on products + other subsidies on production

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- GDP at factor cost (or income)
 - + other taxes on production
 - other subsidies on production
 - = GDP at basic prices

- GDP at basic prices
 - + taxes on products
 - subsidies on products
 - = GDP at market prices

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- GDP at market prices
 - + subsidies on products
 - taxes on products
 - = GDP at basic prices

- GDP at basic prices
 - + other subsidies on production
 - other taxes on production
 - = GDP at factor cost (or income)

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- Factor cost (or income) based on income approach
- Basic prices based on production approach
- Market prices based on expenditure (spending) approach

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GDP: valuation at current prices and constant prices

- **Measurement always first at current prices (nominal GDP)**
- **During inflation, adjustments for price increases required**
 - nominal GDP converted to real GDP
 - use prices in a base year (constant prices)
- **GDP at current prices = nominal GDP (reflects price changes)**

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- GDP at constant prices = real GDP (excludes price changes)
- **In base year:**
 - real GDP = nominal GDP
 - or** GDP at constant prices = GDP at current prices

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Gross national income (GNI or GNP)

- **GDP:** geographical concept; reflects what happened on SA soil, irrespective of who created the product
- We also want to know what happened to the economic position of South Africans

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- $GNI (= GNP) = GDP$
 - all income earned in South Africa by foreign factors of production
 - + all income earned by South African factors of production in the rest of the world
- SA: $GDP > GNI$; USA, Lesotho: $GNI > GDP$

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Expenditure on GDP and gross domestic expenditure

- **Expenditure on GDP** = $C + I + G + X - Z$
= GDP at market prices
- **Gross domestic expenditure (GDE)**
= total value of all spending in South Africa
= $C + I + G$

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- Exports (X) excluded from GDE because expenditure occurs in the rest of the world
- Imports (Z) included in GDE (ie not subtracted) because expenditure occurs in SA

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Relationship between GDE and GDP

- $GDE = C + I + G$
- $GDP = C + I + G + X - Z$

Thus: $GDP = GDE + (X - Z)$

If $GDP > GDE$, then $X > Z$ (ie $(X - Z)$ is positive)

If $GDP < GDE$, then $Z > X$ (ie $(X - Z)$ is negative)

Important point

The difference between domestic spending and domestic production is reflected in the balance of payments.

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Summary of key totals

- $C + I + G = GDE$
 - $GDE + X + Z = GDP$
 $= C + I + G + X - Z$
- GDP – net primary income payments to the rest of the world
- + net primary income receipts from the rest of the world
- = GNI (or GNP)

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Unemployment

- Unemployment rate = $\frac{\text{number of unemployed persons}}{\text{workforce (available workers)}} \times \frac{100}{1}$

- **Strict definition:** only those who have looked for work but not found any
- **Expanded definition:** everyone who desires employment and does not have a job

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Consumer price index (CPI)

- **CPI** = index of prices of representative basket of consumer goods and services
- **Elements of CPI:**
 - basket
 - weights
 - base year
 - formula
 - price collection
- CPI serves as basis for measuring inflation

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Balance of payments

- Summary of all transactions with the rest of the world
- Current account and financial account
- Current account: goods, services and income
- Financial account: direct investment, portfolio investment, other investment
- Change in gold and foreign exchange reserves

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Key elements

- **Current account**
 - Exports (+)
 - Imports (–)
 - Service receipts (+)
 - Service payments (–)
 - Income receipts (+)
 - Income payments (–)
 - Balance on current account

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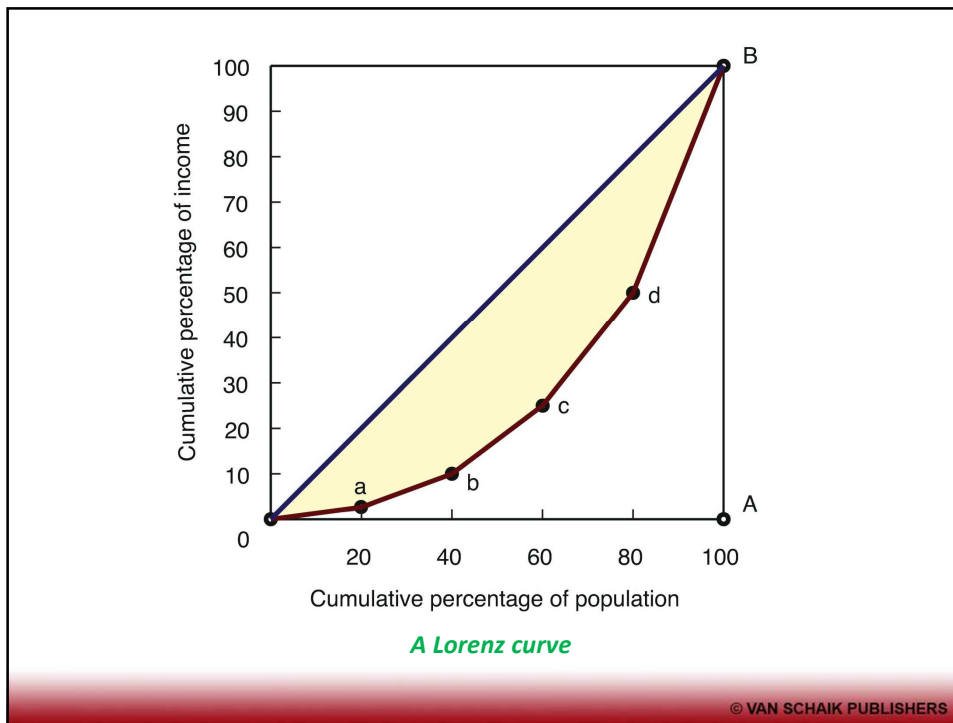
- **Financial account**
 - Direct investment
 - Portfolio investment
 - Other investment
 - Balance on financial account
- **Change in gold and foreign exchange reserves**

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Measuring inequality

- **Lorenz curve**
 - cumulative % of total income plotted against cumulative % of population (ordered from poor to rich)
 - diagonal as line of perfect equality
 - area of inequality between Lorenz curve and diagonal

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- **Gini coefficient**
 - derived from Lorenz curve
 - varies from 0 (perfect equality) to 1 (perfect inequality)
 - SA varies from 0,6 to 0,7 : highly unequal distribution

- **Quantile ratios**