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Econ Chapter 7: GDP and Real GDP

7-1a) Gross Domestic Product: The ~~[illegible]~~ total market value of all final goods and services produced annually with a country's borders.

- Calculating GDP → GDP = Σ(PQ)

7-1b) Final Goods and Intermediate Goods

- Final Good (or service): A good in the hands of the final user, the ultimate consumer
  - Ex. Orange juice that the consumer buys in the store.
- Intermediate Good: An input to the production of a final good
  - Ex. Oranges used to produce orange juice (the final good)
- Double Counting: Refers to counting a good more than once when computing GDP ← We try to avoid ← Only expenditures on final goods are counted when computing GDP
  - Ex. If we count the oranges and the orange juice, then we count the oranges twice because they are in the orange juice.

7-1c) What GDP Omits

- Some trades that take place in an economy are NOT included in GDP
  - Certain Nonmarket goods and services
    - If a family hires someone to cook and clean, the service is counted in the GDP
    - If the family does it themselves it is not counted in GDP
      - No transaction in 2nd example
    - Some nonmarket goods are included in GDP (farm, etc.)
  - Underground Activities, Both Legal and Illegal
    - Consists of unreported exchanges that take place outside the normal recorded markets
      - Illegal goods, tax evasion, gambling, prostitution
      - Working for cash to avoid taxes
  - Sales of Used Goods
    - GDP measures current production, thus a used-car sale, for example, does not enter into the current-year statistics because it was counted when originally produced.
  - Financial Transactions
    - Trading of stocks and bonds not counted in GDP because does not represent production of new assets. (trading existing assets)
  - Government Transfer Payment
    - Transfer Payment: A payment to a person that is not made in return for goods and services supplied
      - Ex. Social Security, Veterans' Benefits

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7-1d) GDP is Not Adjusted for Bads Generated in the Production of Goods

- Some economists argue that the GDP overstates our overall economic welfare since we don't consider the bads.

7.1e) Per-Capita GDP

- If we divide a country's GDP by the population of said country we get per-capita GDP

7-2) The Expenditure Approach to Computing GDP for a Real-World Economy

- In a tiny economy we can calculate GDP by multiplying the price of each good produced by the quantity of the good produced: $GDP = \Sigma PQ$
  - It is not possible to do this for the large American economy
  - We can measure our GDP through the Expenditure Approach
    - Expenditure Approach: They sum the spending (on final goods and services) in four sectors of the economy
      - 1.) Household 2.) Business 3.) Government 4.) Foreign
    - By sector they have different names:
      - Household = Consumption
      - Business = Investment
      - Government = Government Purchases
      - Foreign = Net Exports

Consumption: The sum of spending on durable goods, nondurable goods, and services

- Durable Goods: Expected to last more than three years (Fridge, car)
- Non durable Goods: Not expected to last more than three years (Food)
- Services: Lawn care, car repair, entertainment, intangible items
- Consumption accounts for 70% of GDP and is the largest spending component

Investment: The sum of all purchases of newly produced capital goods, changes in business inventories, and purchases of new residential housing

- Inventory Investment: Changes in the stock of unsold goods
- The sum of the purchases of newly produced capital goods, and the purchase of new residential housing is often referred to as fixed investment
  - Investment = Fixed Investment + Inventory Investment

Government Purchases: Include federal, state, and local government purchases of goods, and services, and gross investment in highways, bridges, and so on

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- Not included in government purchases are government transfer payments

Government Transfer Payments: Payments to persons that are not made in return for currently supplied goods and services. (Welfare, Social Security)

Net Exports = Exports - Imports

- Imports - Total Domestic spending on foreign goods
- Exports - Total foreign spending on domestic goods
  - Net Export can be positive or negative

7-2a) Using Expenditure Method to Compute GDP

- Total the purchases of final goods and services made in the four sectors
  - Same as GDP def. since produced and purchased make same
    - Anything produced but not sold is technically bought by the firm that produced it.
      - GDP = Consumption + Investment + Government purchases + Net Exports (E-I)

7-2b) Misconceptions about increase in GDP

- Firm's inventory investment can rise in two ways:
  - Planned Inventory Investment: Firms may deliberately produce more units of a good and add them to inventory
  - Unplanned Inventory Investment: Consumers don't buy as many units of output as firms have produced, and unsold units added to inventory
    - Planned inventory investment is superior to the increase in GDP due to unplanned inventory investment.

7-3) The Income Approach to Computing ~~a~~ GDP for a Real World Economy

- ~~EFG~~ GDP computed by summing the purchases of the four sectors of the economy is equal to GDP computed by summing the income earned by the different resources
  - Dollar Purchases (Dollar Expenditures) = Dollar Income
  - Money spent to buy goods and services ends up flowing to the resources that produce them
    - Steps: Compute National Income, then adjust for certain things = GDP

7-3a) Computing National Income

- National Income: The sum of 5 components:
  - ~~National Income = Wages and salaries paid to employees + employees' contributions to Social Security [illegible] + [illegible] + [illegible] value of [illegible]~~
  - Compensation of employees + proprietor's income + corporate profits + rental income of persons + Net Interest

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Compensation of Employees: Wages and salaries paid to employees, employers' contribution to social security and benefit plans, the monetary value of fringe benefits, tips, and paid vacations

- Compensation of employees is the largest component of national income

Proprietors' Income: All forms of income earned by self-employed individuals and the owners of unincorporated businesses, including unincorporated farmers

Corporate Profits: Include all the income earned by the stockholders of corporations. Some of the profits are paid to stockholders in the form of dividends, some are kept within the firm to finance investments (these are called undistributed profits or retained earnings), and some are used to pay taxes on corporate profits.

Rental Income (of Persons): The income received by individuals for the use of their nonmonetary assets (land, houses, offices).

- Also includes an imputed value for owner-occupied houses
- Home ownership is seen as a business that produces a service which is sold to the owner of the business

Net Interest: The interest income recieved by U.S. households and government, minus the interest they paid out

National Income: Compensation of employees + proprietors income + corporate profits + rental income + net interest

2-3b) From National Income to GDP: Making Adjustments

- National Income ≠ GDP
  - GDP = National Income - income earned from rest of world + income earned by the rest of the world + indirect business taxes + capital consumption allowance + statistical discrepancy.

Income earned from the rest of the world, Income earned by the rest of the world

- Income that U.S. citizens living abroad earned by producing and selling goods and the income that non U.S. citizens earned by producing and selling goods in the U.S.

Indirect Business Taxes: Made up of excise taxes, sales taxes, and property taxes and are not part of national income because they are not considered a payment to any resource

- Included in the purchases of goods and services thus we have to add it to national income

Capital Consumption Allowance: The estimated amount of capital goods used in production through natural wear, obsolescence, and accidental destruction

- Also called depreciation

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Statistical Discrepancy: Often occur and must be accounted for in national income accounts.

7-3d) Other National Income Accounting Measurements

- Besides GDP and National Income, three other measurements are important: ~~[illegible]~~
  - Net domestic Product, Personal Income, Disposable income
    - All 5 measurements - GDP, National Income, Net Domestic Product, Personal Income, and Disposable Income are used interchangeably to measure the output produced ~~by~~ and income earned in an economy.

Net Domestic Product: GDP minus the capital consumption allowance

- Measures the total value of new goods available in the economy in a given year after worn-out capital goods have been replaced.

7-3e) Personal Income: The amount of income that individuals actually receive.

- Personal Income = National income - undistributed corporate profits - social insurance taxes, - corporate profits taxes + transfer payments

Disposable Income: The portion of personal income that can be used for consumption or saving.

Disposable Income = Personal Income - Personal Taxes

7-4) Real GDP

- The value of the entire output produced annually within a country's borders, adjusted for price changes
- They use it to determine if country is actually growing
  - Only growing if more output is produced, not if price increases

Computing Real GDP: The part of GDP that is higher because the quantity of output is higher.

- Find the value of the output for the different years in terms of the same prices — that is, the base-year price
  - Multiply quantity of good in any given year by the price of the base year

7-4c) The General Equation for ~~GDP~~ Real GDP

- Real GDP = Σ(Base year prices x Current year quantities)

7-4d) Real GDP higher in one year than in another

- Real GDP only rises if output/quantity rises.

7-4e) Real GDP, Economic Growth, Business Cycles

- Economists study two macroeconomic topics that have to do with Real GDP:
  - Economic Growth and Business Cycles

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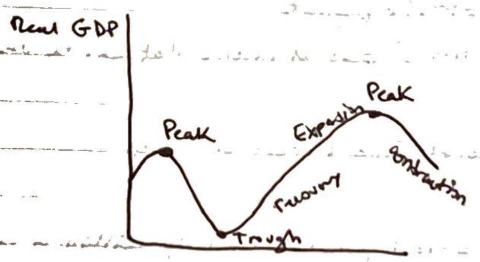
Economic Growth: If Real GDP in one year is higher than Real GDP in the prior year.

- ~~[illegible]~~ Percentage change in Real GDP = $\left(\frac{\text{Real GDP}_{\text{later year}} - \text{Real GDP}_{\text{earlier year}}}{\text{Real GDP}_{\text{earlier year}}}\right) \cdot 100$

Business Cycle: Recurring swings up and down in Real GDP

- 5 phases of the business cycle
  1.) Peak: Real GDP temporarily high
  2.) Contraction: Decline in Real GDP
     - Two consecutive quarterly declines in Real GDP = recession
  3.) Trough: The lowest point in Real GDP, just before it begins to turn up
  4.) Recovery: GDP rising
  5.) Expansion: Increase in Real GDP beyond recovery



- Business cycle measured from peak to peak
  - Typically 4-5 years.