

Tutorial 1: Measurement of Macroeconomy

ECON 3123: Macroeconomic Theory I

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Example 1: Calculation of GDP

Suppose there are only two firms in the economy:

- Farm A grows strawberries. In 2016, it sold \$10,000 worth of strawberries to customers, \$20,000 worth of strawberries to Japan, and \$30,000 worth of strawberries to Cafe B. It also pays \$5,000 wages to its employees and \$10,000 rent to the landlord.
- Cafe B makes and sells strawberry cakes. In 2016, it sold \$60,000 worth of strawberry cakes to customers and stored away \$20,000 worth of strawberry cakes. It pays \$15,000 wages to its employees, \$4,000 rent for its shop and \$2,000 interest payment on its loans. The stored cakes are sold in 2017.

Profit tax is 10% and Wage tax is 10%. What is the GDP of this economy?

Example 2: Chain RGDP

Class Spreadsheet.

Example 3 and 4: Inflation

- The consumer price index (CPI) was 180 for 2009 when using 1995 as the base year ($1995 = 100$). Now suppose we switch and use 2009 as the base year ($2009 = 100$). What is the CPI for 1995 with the new base year?
- Two years ago, the GDP deflator for Old York was 300, and today it is 330.75. Based on this information, what is the annual average inflation rate for the two years?