2.1 The Level of Overall Economic Activity

The circular flow of income model

Circular flow of income: Model that illustrates the flow of money in the economy.

The national income flow consists of the four factors of production and their payments, namely rent (land), wages (labour), interest (capital), and profits (entrepreneurship). This is equivalent to the expenditure flow (the total spending on all goods and services in an economy) as well as the output flow (the total value of all final goods and services produced in an economy), as illustrated on the circular flow of income diagram below.

In a simplified diagram with a closed economy and no government, the model consists only of households and firms. However, in an open economy that includes government and financial institutions, there are leakages (that decrease the income circulating in the economy) and injections (that increase the income circulating in the economy). Leakages consist of savings (money flows out of economy to financial institutions and is not spent by the household), imports (households buy goods and services from overseas), and taxes (part of household income that is paid to the government). Injections, on the other hand, consist of investments (firms borrow money from institutions to expand output or increase stock of capital), exports (source of income coming from foreign households), and government spending (government expenditure on goods and services like infrastructure).

For any economy in equilibrium, the value of leakages (S+T+M) equals the value of injections (I+G+X). If the value of leakages exceeds injections, then the size of the circular flow will fall. Conversely, if the value of injections exceeds leakages, the size of the circular flow will increase.

Measures of economic activity: GDP and GNI

The Output Approach: measures the value of all final goods and services produced in the economy in a given period of time. (Does not include value of intermediate goods, if not there would be double counting)

\[ \text{Output approach: value of final good}_1 + \text{value of final good}_2 + \ldots \]

The Expenditure Approach: measures the total spending on all goods and services in an economy in a given period of time

\[ \text{Expenditure approach: C+I+G+(X-M)} \]
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The Income Approach: measures all the factor incomes earned by the four different factors of production in an economy over a given time period

Income Approach: rents + wages + interests + profits

Gross Domestic Product (GDP): the total value of all final goods and services produced within a country’s borders in a year, regardless of who owns the productive assets.

Gross National Product/Income (GNP/I): the total income earned by a country’s factors of production, regardless of where the assets are located.

GNI = GDP + net property income from abroad

Real GDP: Nominal GDP is GDP not adjusted for inflation (measured with prevailing prices at time of measurement). Real GDP is adjust for inflation.

Real GDP = Nominal GDP adjusted for inflation

GDP deflator = (Nominal GDP)/(Real GDP) *100

= (100 + inflation rate)

Per capita: Total GDP/ Total Population

*Useful for comparisons with other countries in terms of living standards, since different countries have different populations

Other considerations with respect to national income statistics and their use for making comparisons between countries about standards of living

• Composition of output (eg. is it national defence? May not benefit consumers)

• Income disparity/ distribution

• Exchange rate for international companies (affects measure of output)

• Statistical inaccuracies/discrepancies in data

• Unrecorded economic activity/ informal markets

• External costs/ social impacts (eg. resource depletion, environmental costs, low working conditions) …. → Green GDP

Green GDP: measure of GDP that takes into environmental costs incurred by the production of goods and services included in the GDP figures.

Green GDP = GDP – environmental costs of production

(eg. health, agricultural, industrial costs – air pollution, water pollution

BP oil spill in Mexico in 2010)

The Business Cycle

The regular patterns of increases and decreases in economic activity (actual GDP) around the long-term trend (potential GDP, where unemployment rate = natural rate of unemployment).

There are 4 phases in a business cycle:

1. Recovery

   • GDP increases, falling unemployment (which results in more spending)

   • Low rates of inflation, due to recession before (↑X, ↓M, ↑AD)

   • Low interest rates stimulates borrowing (↑C, ↑I, ↑AD)

   • Replacement of machinery and anticipation of recovery (↑C, ↑I, ↑AD)
2. Peak
   - Actual GDP > Potential GDP
   - Output gap (+ve)/ inflationary gap
   - Unemployment < natural rate of unemployment
   - Demand peaks and AD ↓, firms reach capacity and high interest rates

3. Recession (two consecutive quarters of negative GDP growth)
   - GDP falls, increasing unemployment
   - Business prospects and confidence low (C ↓, I ↓, AD ↓)
   - Government unwilling to stimulate economy (if inflation high or BoP still in deficit) (G ↓, AD ↓)

4. Trough
   - Actual GDP < Potential GDP
   - Output gap (-ve)/ deflationary gap
   - Unemployment > natural rate of unemployment
   - Cannot last forever, always minimum production therefore cycle repeats

A decrease in GDP is when there is a fall in the value of the output produced (negative GDP growth), whilst a decrease in GDP growth is when there is a fall in the rates of growth, although the GDP growth may still be positive.