GDP shortcomings

• GDP has a number of shortcomings as a measure of economic welfare:
  – Non-market transactions
  – Distribution, kind and quality of products
  – Neglect of leisure time
  – The underground economy
  – Economic bads (overusing resources, pollution...).

• It is a quantitative, rather than qualitative, measure of output.
5. **Compute the inflation rate**: The inflation rate is the percentage change in the price index from the preceding period.

The inflation rate is calculated as follows:

\[
\text{inflation rate in year 2} = \frac{\text{CPI in year 2} - \text{CPI in year 1}}{\text{CPI in year 1}} \times 100\%
\]

**Calculating the CPI and the inflation rate: An example**

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumer price index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>($14/$14) x 100 = 100</td>
</tr>
<tr>
<td>2010</td>
<td>($22/$14) x 100 = 157</td>
</tr>
<tr>
<td>2011</td>
<td>($32/$14) x 100 = 229</td>
</tr>
</tbody>
</table>

**Step 5: Use the consumer price index to calculate the inflation rate from previous year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Inflation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>(157 - 100)/100 x 100 = 57%</td>
</tr>
<tr>
<td>2011</td>
<td>(229 - 157)/157 x 100 = 45%</td>
</tr>
</tbody>
</table>

**Problems in measuring the cost of living**

- The CPI is an accurate measure of the selected goods that make up the typical bundle, but it is not a perfect measure of the cost of living.
  - **Fixed basket for several years**
  - **Substitution bias**
    - The basket does not change to reflect consumer reaction to changes in relative prices.
    - Consumers substitute toward goods that have become relatively less expensive.
    - The index overstates the increase in cost of living by not considering consumer substitution.
  - **Introduction of new goods**
    - Fixed basket cannot reflect the introduction of new products timely.
    - New products result in greater variety, which in turn makes each dollar more valuable.
  - **Unmeasured quality changes**
    - If the quality of a good rises from one year to the next, the value of a dollar rises, even if the price of the good stays the same.
    - If the quality of a good falls from one year to the next, the value of a dollar falls, even if the price of the good stays the same.

The substitution bias, introduction of new goods, and unmeasured quality changes cause the CPI to be an inaccurate measure for the true cost of living.
In the short run, the aggregate-supply curve is upward-sloping.

Why is it upward sloping?

- Always start from firm’s profit.
- Profit = revenue - cost

1- The Keynesian sticky-wage theory
- Nominal wages are slow to adjust, or are ‘sticky’ in the short run.
  - Wages do not adjust immediately to a fall in the price level.
  - A lower price level makes employment and production less profitable.
  - This induces firms to reduce the quantity of goods and services supplied.

2- The New Keynesian sticky-price theory
- Prices of some goods and services adjust sluggishly in response to changing economic conditions.
- An unexpected fall in the price level leaves some firms with higher-than-desired prices.
- This depresses sales, which induces firms to reduce the quantity of goods and services they produce.

3- The new classical misperceptions theory
- Decrease in the overall price level temporarily mislead suppliers about what is happening in the markets in which they sell their output.
  - A lower price level causes misperceptions about relative prices – supplier only notice his product is cheaper – profit is lower.
  - These misperceptions induce suppliers to decrease the quantity of goods and services supplied

Shifts if SRAS
- Shifts arise due to:
  - Labour: An increase in minimum wage raises natural rate of unemployment rate
  - capital
  - natural resources
  - technology
  - expected price level

- An increase in the expected price level reduces the quantity of goods and services supplied and shifts the short-run aggregate supply curve to the left.

- Predict price high → set wages high → production cost high → profit low → supply less