Stabilization policy is the use of monetary and fiscal instruments to smooth out fluctuations in output, unemployment, and inflation.

Key question: Why do policymakers care about unemployment and inflation?
The costs of unemployment are obvious, but are mitigated by several factors:

1. Unemployment insurance cushions the financial shock of unemployment (to a limited extent).

2. Unemployed people may engage in useful activities like acquiring skills and searching for a good match with an employer.

3. Unemployed people enjoy more leisure!
The costs of inflation are less obvious

1. Costs of anticipated inflation: shoe leather costs. The real rate of return on money is $-\pi$ (the negative of the inflation rate). People expend real resources trying to minimize their holdings of money (especially true in countries with hyperinflation).

2. Costs of unanticipated inflation: unpredictable (or volatile) inflation interferes with the efficient allocation of resources to productive activities (because it tends to obscure relative prices). This problem could be avoided if we had full indexation of individual prices to the aggregate price level).
The German Hyperinflation

Currency in circulation and wholesale prices (January 1922 = 1)

Year

1922  1923  1924

Prices

Currency
<table>
<thead>
<tr>
<th>Inflation rate (% per year)</th>
<th>Growth of per capita GDP (% per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20–0</td>
<td>0.7</td>
</tr>
<tr>
<td>0–10</td>
<td>2.4</td>
</tr>
<tr>
<td>10–20</td>
<td>1.8</td>
</tr>
<tr>
<td>20–40</td>
<td>0.4</td>
</tr>
<tr>
<td>100–200</td>
<td>−1.7</td>
</tr>
<tr>
<td>1,000+</td>
<td>−6.5</td>
</tr>
</tbody>
</table>

**TABLE 32-1. Inflation and Economic Growth**
Short-term interest rates and the Federal Reserve

1. Banks must hold reserves at the Federal Reserve Bank.

2. Banks that fall short of their reserve requirements must borrow reserves from the Federal Reserve (at the “discount window”) or from other banks (the Federal Funds market).

3. Through open market operations (purchases and sales of government bonds from and to the general public), the Federal Reserve manipulates the aggregate supply of reserves in order to induce the Federal Funds rate (the price that clears the market for Federal Funds) to hit an announced target for this interest rate.

4. “Tight” money = high interest rate; “loose” money = low interest rate
Should the discretion of the Federal Reserve be restricted?

- The Fed might be tempted to unexpectedly raise inflation (by loosening monetary policy), so as to induce a temporary fall in unemployment: $\pi_t - \pi_t^e = -a(u_t - u_n)$.

  If $\pi_t$ falls but $\pi_t^e$ does not, then $u_t$ falls too.

- But if consumers/workers/firms are “savvy,” then $\pi_t^e$ adjusts quickly; the end result is high inflation, but no change in the unemployment rate!

- The Fed faces a “time-inconsistency” problem: if it announces a target for inflation, it is tempted to deviate from this target to achieve its other goal of keeping unemployment low. But this generally leads to bad outcomes!

- Possible solution: “Conservative” central bankers who focus mainly on inflation targets (New Zealand was the pioneer here).
The long-run neutrality of money

- If the nominal money supply $M$ increases, the aggregate demand curve shifts out (because $\frac{M}{P}$, the real money supply, increases).

- In the short run, this increase in aggregate demand raises output (and prices).

- But eventually $P_e$ adjusts upwards, shifting the SRAS curve up, and the economy returns to a long-equilibrium in which $P = P_e$ and $Y = Y_n$.

- Ultimately, then, $P$ increases in the same proportion as $M$, so that real money $\frac{M}{P}$ does not change. The interest rate, output, and unemployment all return to their original values. The only long-run effect of an increase in the money supply is an increase in the price level.
Each point represents a 30-year average for a given country (for the time period 1960 - 1990).
Each point represents a 30-year average for a given country (for the time period 1960-1990).
• The long-run neutrality of money is consistent with the time-honored quantity theory of money.

• \( py = Mv \), where \( py = \) nominal GDP and \( v = \) velocity of money

• If \( v \) and \( Y \) (real GDP) are relatively constant, then changes in \( M \) simply lead to changes in \( P \).

• This is a reasonable description of the long run, but not the short run.

• The long-run neutrality of money is sometimes called the classical dichotomy: in the long run, the real part of the macroeconomy does not depend on money (i.e., the nominal part of the macroeconomy). Money affects only the price level in the long run.