Using the Multiplier to Estimate the Influence of Government Policy

• Fiscal policy has a **multiplier effect** on the economy.

• Fiscal policy can take the form of changes in taxes, transfers, and government spending.

• The multiplier on changes in government purchases is $1/(1 - MPC)$. 
Multiplier Effects of Changes in Taxes and Government Transfers

- Assume the government cuts personal taxes $50 billion.

- There is no direct effect on AD by government purchases of goods and services; GDP goes up only because households spend some of that $50 billion.

- How much will they spend?
  - If $MPC = 0.5$, the first-round increase in consumer spending will be $25 billion ($0.5 \times $50 billion = $25 billion).
  - There will be a series of subsequent rounds in which real GDP, disposable income, and consumer spending rise further.
## Multiplier Effects of Changes in Government Transfers and Taxes

### Table 31-1

**Hypothetical Effects of a Fiscal Policy with Multiplier of 2**

<table>
<thead>
<tr>
<th>Effect on real GDP</th>
<th>$50 billion rise in government purchases of goods and services</th>
<th>$50 billion rise in government transfer payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>First round</td>
<td>$50 billion</td>
<td>$25 billion</td>
</tr>
<tr>
<td>Second round</td>
<td>$25 billion</td>
<td>$12.5 billion</td>
</tr>
<tr>
<td>Third round</td>
<td>$12.5 billion</td>
<td>$6.25 billion</td>
</tr>
<tr>
<td>Eventual effect</td>
<td>$100 billion</td>
<td>$50 billion</td>
</tr>
</tbody>
</table>
Multiplier Effects of Changes in Government Transfers and Taxes

• The multiplier on changes in taxes or transfers, \( \frac{MPC}{1 - MPC} \), because part of any change in taxes or transfers is absorbed by savings.

• The results from changes in taxes are complicated because governments rarely impose lump-sum taxes.

• Changes in government purchases have a more powerful effect on the economy than equal-sized changes in taxes or transfers.
How Taxes Affect the Multiplier

• Rules governing taxes and some transfers act as **automatic stabilizers**, reducing the size of the multiplier and automatically reducing the size of fluctuations in the business cycle.

• In contrast, **discretionary fiscal policy** arises from deliberate actions by policy makers.
Economics in Action

Multipliers and the Obama Stimulus

• The American Recovery and Reinvestment Act was the largest discretionary fiscal expansion in U.S. history -- $787 billion.

• Economists assumed that the government spending and tax relief would yield an overall multiplier for the stimulus of 1.4, or add approximately 1.8 percentage points to real GDP.

• This didn’t happen. The problem was that financial crises tend to produce very deep, prolonged slumps.