Government Spending and its Financing, Part 1

Agenda

- Fiscal Policy and Budget Balances
- Measuring Budget Change
  - Automatic versus Discretionary Changes
- Designing Effective Short-run Fiscal Policy

Fiscal Policy and Budget Balances

- Budget Arithmetic:
  - $G = G$
  - $T = tY$
  - $T - G = tY - G$, where
    - $G$ is the autonomous budget, and
    - $tY$ is the induced budget.

Budget balance line
**Fiscal Policy and Budget Balances**

- Y is determined in the IS – LM model.
- T – G is determined by the BB line.

**Actual budget balance**

<table>
<thead>
<tr>
<th>T – G</th>
<th>Surplus (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>- G</td>
<td>Deficit (-)</td>
</tr>
</tbody>
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**Fiscal Policy and Budget Balances**

- **Automatic Stabilizers:**

  - *Automatic stabilizers* cause fiscal policy to be counter-cyclical by changing government spending and/or tax revenues automatically.

    - For example, during recessions, unemployment insurance payments rises because the number of unemployed people increases.
    - For example, during recessions, tax revenues fall because (taxable) income declines.

- **Automatic Stabilizers:**

  - Because of automatic stabilizers, the government budget balance will fall during recessions and rise during booms.
Fiscal Policy and Budget Balances

• Automatic Stabilizers:

- Automatic changes in the budget balance result primarily from changes in induced taxes.

- $BB = T - G = tY - G$
- $\Delta T = t \cdot \Delta Y$
- $\Delta BB = \Delta(T - G) = t \cdot \Delta Y - G$
- Represented by movement along a given BB line.

Automatic stabilizers

Fiscal Policy and Budget Balances

• Discretionary Fiscal Policy:

- Deliberate changes in fiscal policy.
  - Changes in $G$.
  - Changes in $t$.

- Represented by a change in the BB line.
  - Changes in $G$ generate a parallel shift.
  - Changes in $t$ generate a rotation.

Increasing government purchases
Increasing government purchases

\[ \text{T} - \text{G} \]

Surplus (+)

Deficit (-)

Decreasing tax rates

\[ Y \]

\[ \text{r} \]

\[ \text{LM}_0 \]

\[ \text{IS}_0 \]

Decreasing tax rates

\[ \text{T} - \text{G} \]

Surplus (+)

Deficit (-)

Measuring Budget Change

• How do we compare:
  - A change in G (measured in dollars) with
  - A change in t (measured in %)?

• Alternatively, how do we compare:
  - A parallel shift in the BB line with
  - A rotation of the BB line?
Measuring Budget Change

• Automatic versus Discretionary Changes:

➢ Select a given Y.
  • Full-employment output, Y*.

➢ The budget balance at full-employment output is called the Structural Budget Balance, SBB.
  • Also, the standardized, natural employment, or full employment budget.
  • If T – G = tY – G.
  • Then SBB = tY* – G.

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Structural budget balance

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Measuring Budget Change

• Automatic versus Discretionary Changes:

➢ The full-employment budget balance is a measure of what the government budget balance would be IF the economy were at full-employment.

➢ So the full-employment budget balance does not change with the business cycle; only with changes in government fiscal policy.

• Changes in the structural budget balance will represent changes in discretionary fiscal policy.

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Increasing government purchases

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Decreasing tax rates

Measuring Budget Change

- Budget Concepts:
  - Actual budget balance, ABB, is measured at actual Y.
  - Structural budget balance, SBB, is measured at Y*.
  - Cyclical budget balance, CBB, occurs when economy is not at full-employment output.
    - CBB = BB – SBB.
    - If actual budget < structural, then cyclical budget < 0.
    - If actual budget > structural, then cyclical budget > 0.

Three Budget Balances

Designing Effective Short-run Fiscal Policy

- Size and composition of fiscal package.

  - Relative effectiveness:
    - A dollar more of G has a larger effect than a dollar less of T.
      - The G multiplier is larger than the T multiplier.
      - G has direct effect on spending, T has indirect effect.
Designing Effective Short-run Fiscal Policy

- Government spending considerations.
  - New spending or replacement outlays.
  - Prospective timing of outlays.
    - How quickly can you spend the money.
  - Nature and location of the prospective outlays.
    - How much "leaks" abroad.

Designing Effective Short-run Fiscal Policy

- Tax considerations:
  - Personal Taxes.
    - Permanent or temporary.
    - Marginal propensities to consume.
    - Design of tax.
    - Ease of implementation.

- Corporate Taxes.
  - Permanent or temporary.
  - Design of tax.
  - Ease of implementation.