

## Stabilization Policies Study Guide

### Deficits and the Public Debt

- **Budget balance** (government savings) = Tax revenues – Government purchases of goods/services – Government transfers
- Negative budget balance is a deficit, positive budget balance is a surplus
- Usually, expansionary policy → lower budget balance, contractionary → higher budget balance
  - o Keep in mind: changes in budget balance are result of fluctuations in economy, not the cause, b/c (for example, in a recession) automatic stabilizers increase → G transfers increase → deficit increases
- Correlation between business cycle + budget deficit as a percent of GDP (**GDP-debt ratio**, often used to accurately measure danger of debt levels)
- **Cyclically adjusted budget deficit** → eliminates inflationary + recessionary gaps to measure budget balance, real GDP = potential output
- Fiscal year: October 1 to September 30 to calculate budget totals
- **Q1) What are some problems posed by rising government deficits?**
- Last resort solutions: 1) print more money → inflation 2) government default → deep economic turmoil
- Implicit liabilities: spending promises that are basically future debt, but isn't included in normal debt stats
  - o Eg: Social Security, Medicaid, Medicare

### Interaction of Fiscal and Monetary Policies, Monetary v. Fiscal Policy

- Modern consensus:
  - o monetary and fiscal both effective in short run, neither can reduce unemployment rate in long run.
  - o both monetary and fiscal policy can shift the AD curve.
  - o monetary policy should play main role in stabilization (fiscal is subject to policy lags, and is therefore ineffective)

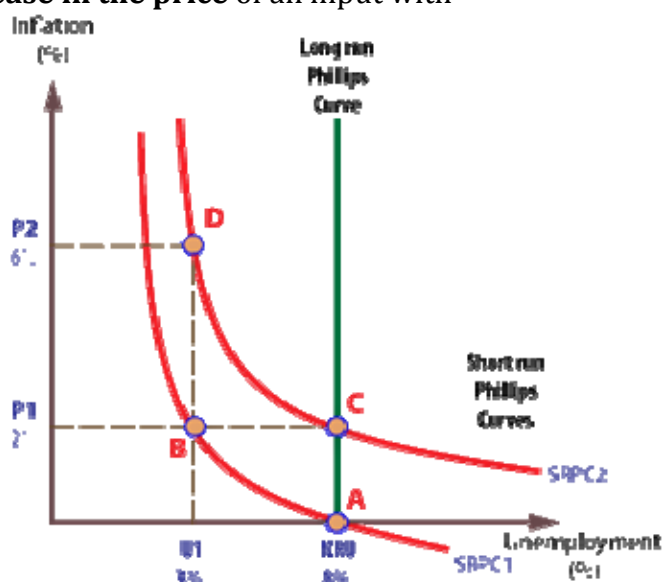
#### Stabilization Policies

### Demand-pull v. Cost-push Inflation

- o Cost-push: Inflation caused by **an increase in the price** of an input with importance, which **increases SRAS**.
- o Demand-pull: Inflation caused by **an increase in AD**

### The Phillips Curve

- o Short-run
  - Inflation and unemployment are inversely related
- o Long-run
  - Vertical / No trade-off between inflation and unemployment



- **NAIRU** (nonaccelerating inflation rate of unemployment) = natural rate of unemployment

- Q2: What would happen to the Phillips curve in the short run and long run if multiple news sites reported that inflation rates will double next year? Illustrate with a graph.
- any unemployment rate below NAIRU leads to ever-accelerating inflation
- Expectations of inflation adjust to experience

### Role of Expectations

- Changes in expected inflation affect the **short-run Phillips curve**, not the **long-run**.
  - Increase in expected inflation → SRPC **shifts up**
  - Decrease in expected inflation → SRPC **shifts down**
  - An increase or decrease of 1% inflation increases or decreases the unemployment rate by 1%
- Expected inflation rate = most important factor affecting inflation other than the unemployment rate

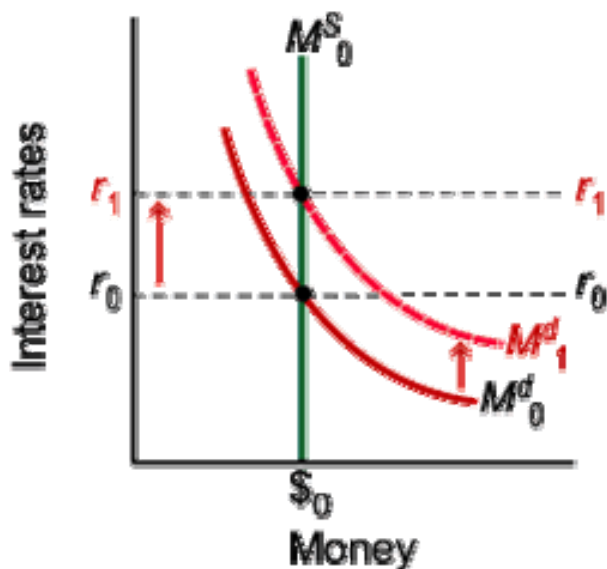
### Supply Shocks

- Negative supply shocks **shift the SRPC up**
- Positive supply shocks **shift the SRPC down**

### Policy Lags

- For discretionary fiscal policy, government perceptions about economy lag behind reality + further lags in Congress + lag in time it takes for policy to take effect → policy lag.
- Monetarists argue that policy lag makes fiscal policy ineffective
- Principal lag for monetary policy: time it takes for policy to affect AD
- Principal lag for fiscal policy: time it takes to implement new policy.

### Crowding Out



When the government uses expansionary fiscal policy → AD shifts outwards → price level + output increases → increased demand in money reflected in the graph to the left → the Fed keeps money supply constant → increase in money demand causes increase in interest rates → discourages investment spending → 'crowding out' investors slows down economic growth.

Government Multiplier v. Tax Multiplier

- Review multiplier effect:  $1 / (1 - MPC)$  OR  $1 / MPS$
- When the government injects money through purchase of goods/services and stimulus packages, multiply that money by the multiplier effect.
  - o Eg:  $MPC = 0.5$ . Multiplier effect =  $1 / (1 - 0.5) = 2$ . Government injects 1,000,000 dollars. Total effect on economy: 1 million x 2 = 2 million dollars.
- Tax multipliers:  $[(+/-) \text{ changes in taxes} - MPC] / [1 - MPC]$ 
  - o These are generally less effective than government multipliers because people save (MPC) part of the tax cuts.
- Q3) The following table shows the MPC (marginal propensity to consume) of families with different income levels in Disneyland.

Income Range	MPC (Marginal propensity to consume)
\$0 - \$30,000	0.9
\$30,001 - \$50,000	0.75
\$50,001 - \$70,000	0.6
\$70,001 - \$100,000	0.5
\$100,000 and above	0.25

- I. Calculate the multiplier for each of the income groups above.
- II. Suppose the government decides to increase purchases of goods and services by \$250,000. Calculate the total increase in real GDP as a result of this action (assume that government spending reaches out equally to all income ranges. That is, \$50,000 to each income range).
- III. Suppose the assumption in part II is removed. Which group should the government target its spending on if there is a recessionary gap in the country? Explain.

#### Balanced Budget Multiplier

- Method used to counter further increases in the budget deficit.
- Increase the government spending by full employment output – equilibrium level output, while increasing taxes by the same amount to balance out the increased G spending.
- Easy way to put it: increase government spending, increase tax = balanced budget.

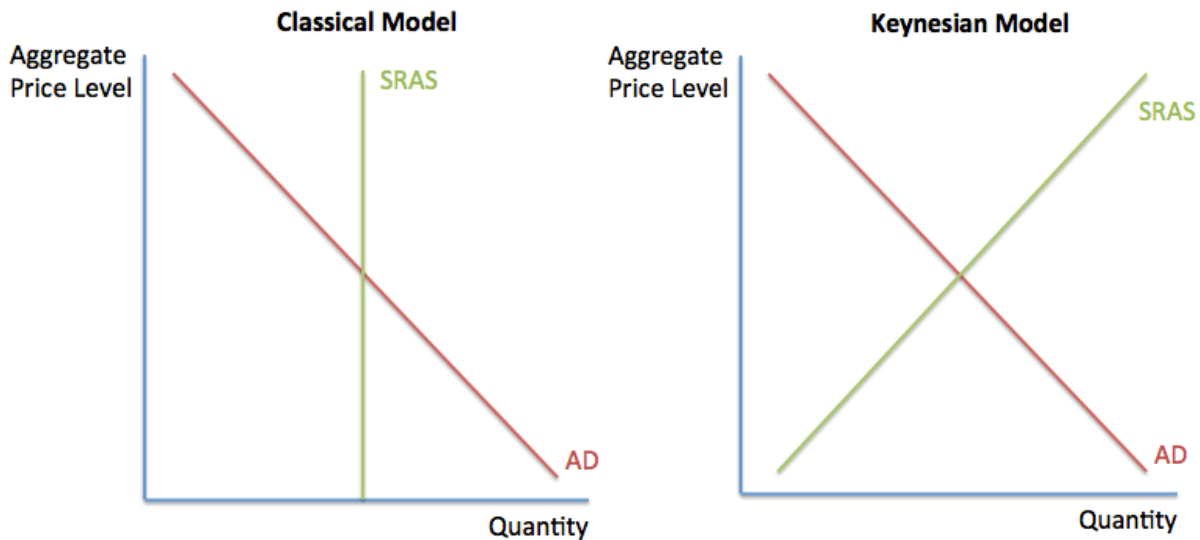
#### Macroeconomics History

- short run Great Depression demonstrated that classicals can't ignore the
- Keynes's Theory: 1) emphasized short run 2) business confidence mainly responsible for econ. cycles 3) legitimized macroeconomic policy activism

- Monetarism revitalized with Friedman (1963), suggesting shift away from fiscal policy
- Today: macroeconomic consensus (see section “Interaction of Fiscal and Monetary Policies)

Alternate Views of Macroeconomics

- Classical View vs. Keynesian View



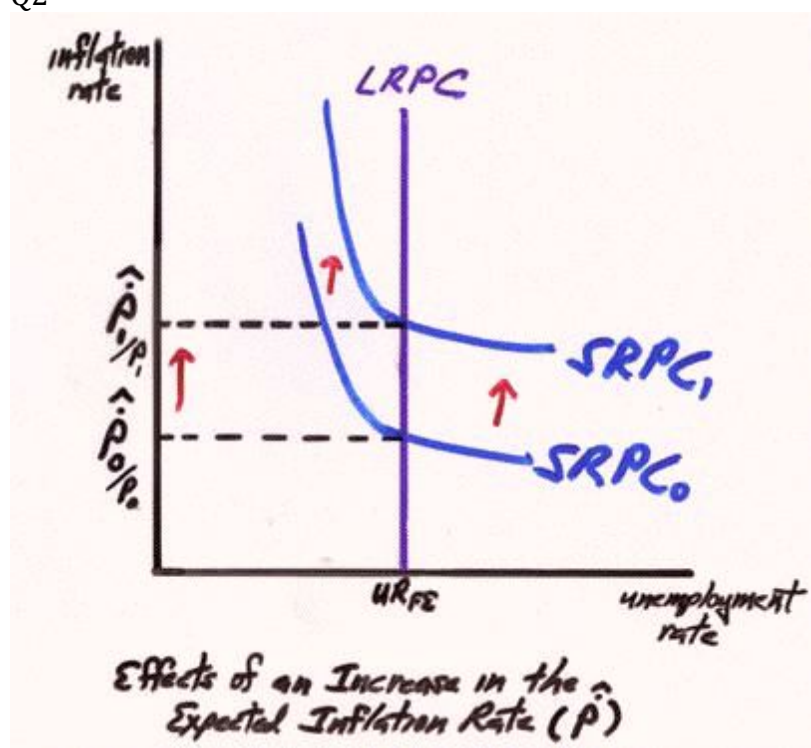
- Monetarism: GDP will grow steadily if money supply grows steadily
  - o Should use discretionary monetary policy, since fiscal → time lags
  - o Used the equation  $M \cdot V = P \cdot Y$ 
    - M: money supply; V: velocity; P: agg. price level; Y: real GDP
- Rational expectations – individuals and firms make decisions optimally, using all available information

Answer key

Q1

- 1) Competes with firms to borrow money, 'crowds' out private investment spending → increase I.R. + slow down growth
- 2) Place strains on future budgets, still have to pay back debt. Debt requires interest, so debt leads to more debt if not paid back.

Q2



**Short run:**

The SRPC shifts upwards because expected inflation increases.

**Long run:**

The LRPC doesn't change because in the long-run there is no tradeoff between inflation and unemployment. Workers and employers adjust to inflation, giving / receiving wages relative to anticipated inflation. Unemployment then rises to its previous level with higher inflation rates.

Q3)

I. For income range \$0 - \$30,000:  $\frac{1}{1-MPC} = \frac{1}{1-0.9} = \frac{1}{0.1} = 10$

For income range \$30,001 - \$50,000:  $\frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$

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$$\text{For income range } \$50,001 - \$70,000: \frac{1}{1 - MPC} = \frac{1}{1 - 0.6} = \frac{1}{0.4} = 2.5$$

$$\text{For income range } \$70,001 - \$100,000: \frac{1}{1 - MPC} = \frac{1}{1 - 0.5} = \frac{1}{0.5} = 2$$

$$\text{For income range } > \$100,000: \frac{1}{1 - MPC} = \frac{1}{1 - 0.25} = \frac{1}{0.75} = 1.33$$

II. For income range \$0 - \$30,000:  $50,000 * 10 = \$500,000$

$$\text{For income range } \$30,001 - \$50,000: 50,000 * 4 = \$200,000$$

$$\text{For income range } \$50,001 - \$70,000: 50,000 * 2.5 = \$125,000$$

$$\text{For income range } \$70,001 - \$100,000: 50,000 * 2 = \$100,000$$

$$\text{For income range } > \$100,000: 50,000 * 1.33 = \$66,500$$

$$\text{Total: } 500,000 + 200,000 + 125,000 + 100,000 + 66,500 = \$991,500$$

III. Government should target lower income range, since it has the highest multiplier, and would therefore create the largest change in real GDP.