The Influence of Monetary and Fiscal Policy on Aggregate Demand

Chapter 32

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Aggregate Demand

- Many factors influence aggregate demand besides monetary and fiscal policy.
- In particular, desired spending by households and business firms determines the overall demand for goods and services.
- When desired spending changes, AD shifts.
- Monetary and Fiscal policy are used to offset those shifts in AD.

How Monetary Policy Influences Aggregate Demand

For the U.S. economy, the most important reason for the downward slope of the aggregate-demand curve is the interest-rate effect.
The Theory of Liquidity Preference

- Keynes developed the theory of liquidity preference in order to explain what factors determine the economy’s interest rate.
- According to the theory, the interest rate adjusts to balance the supply and demand for money.

Money Supply

- The money supply is controlled by the Fed through:
  - Open-market operations
  - Changing the reserve requirements
  - Changing the discount rate
- Thus the quantity of money supplied does not depend on the interest rate and is vertical.

Money Demand

- Money demand is determined by several factors.
- According to the theory of liquidity preference, one of the most important factors is the interest rate.
- People choose to hold money because money can be used to buy other goods and services.
Money Demand

- The opportunity cost of holding money is the interest that could be earned on interest-earning assets.
- An increase in the interest rate raises the opportunity cost of holding money.
- As a result, the quantity of money demanded is reduced.

Equilibrium in the Money Market

- According to the theory of liquidity preference:
  - The interest rate adjusts to balance the supply and demand for money.
  - There is one interest rate, called the equilibrium interest rate, at which the quantity of money demanded equals the quantity of money supplied.
  - The price level is stuck at some level.
Changes in the Money Supply

- The Fed can shift the aggregate demand curve when it changes monetary policy.
- An increase in the money supply shifts the money supply curve to the right.
- Without a change in the money demand curve, the interest rate falls.
- Falling interest rates increase the quantity of goods and services demanded.

A Monetary Injection...

(a) The Money Market

1. When the Fed increases the money supply, the equilibrium interest rate falls.

(b) The Aggregate-Demand Curve

1. When the Fed increases the money supply...
2. ...which increases the quantity of goods and services demanded at a given price level.
3. ...which increases the quantity of goods and services demanded at a given price level.

Changes in the Money Supply

- When the Fed increases the money supply, it lowers the interest rate and increases the quantity of goods and services demanded at any given price level, shifting aggregate-demand to the right.
- When the Fed contracts the money supply, it raises the interest rate and reduces the quantity of goods and services demanded at any given price level, shifting aggregate-demand to the left.
How Fiscal Policy Influences Aggregate Demand

- Fiscal policy refers to the government’s choices regarding the overall level of government purchases or taxes.
- Fiscal policy influences saving, investment, and growth in the long run.
- In the short run, fiscal policy primarily affects the aggregate demand.
- Fiscal policy can be used to alter government purchases or to change taxes.

Changes in Government Purchases

- There are two macroeconomic effects from the change in government purchases:
  - The multiplier effect
  - The crowding-out effect

The Multiplier Effect

- Government purchases are said to have a multiplier effect on aggregate demand.
- Each dollar spent by the government can raise the aggregate demand for goods and services by more than a dollar.
Aggregate demand, AD

Quantity of Output

The Multiplier Effect...

1. An increase in government purchases of $20 billion initially increases aggregate demand by $20 billion...

2. ...but the multiplier effect can amplify the shift in aggregate demand.

$20 billion

A Formula for the Spending Multiplier

- The formula for the multiplier is:
  \[ \text{Multiplier} = \frac{1}{1 - \text{MPC}} \]

- An important number in this formula is the marginal propensity to consume (MPC).
  - It is the fraction of extra income that a household consumes rather than saves.

If the MPC is 3/4, then the multiplier will be:

\[ \text{Multiplier} = \frac{1}{1 - 3/4} = 4 \]

In this case, a $20 billion increase in government spending generates $80 billion of increased demand for goods and services.
The Crowding-Out Effect

- Fiscal policy may not affect the economy as strongly as predicted by the multiplier.
- An increase in government purchases causes the interest rate to rise.
- A higher interest rate reduces investment spending.

The Crowding-Out Effect

When the government increases its purchases by $20 billion, the aggregate demand for goods and services could rise by more or less than $20 billion, depending on whether the multiplier effect or the crowding-out effect is larger.

Changes in Taxes

- When the government cuts personal income taxes, it increases households’ take-home pay.
  - Households save some of this additional income.
  - Households also spend some of it on consumer goods.
  - Increased household spending shifts the aggregate-demand curve to the right.
Using Policy to Stabilize the Economy

Economic stabilization has been an explicit goal of U.S. policy since the Employment Act of 1946.

The Case for Active Stabilization Policy

The Employment Act has two implications:
- The government should avoid being the cause of economic fluctuations.
- The government should respond to changes in the private economy in order to stabilize aggregate demand.

The Case Against Active Stabilization Policy

- Some economists argue that monetary and fiscal policy destabilizes the economy.
- Monetary and fiscal policy affect the economy with a substantial lag.
- They suggest the economy should be left to deal with the short-run fluctuations on its own.
Automatic Stabilizers

- **Automatic stabilizers** are changes in fiscal policy that stimulate aggregate demand when the economy goes into a recession without policymakers having to take any deliberate action.
- **Automatic stabilizers** include the **tax system** and some forms of **government spending**.