The Influence of Monetary and Fiscal Policy on Aggregate Demand

Chapter 32

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.**

Aggregate Demand

- **When desired spending changes, aggregate demand shifts, causing short-run fluctuations in output and employment.**
- **Monetary and fiscal policy are sometimes used to offset those shifts and stabilize the economy.**

How Monetary Policy Influences Aggregate Demand

- The aggregate demand curve slopes downward for three reasons:
  - The wealth effect
  - The interest-rate effect
  - The exchange-rate effect

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

Money Supply

- Because it is fixed by the Fed, the quantity of money supplied does not depend on the interest rate.
- The fixed money supply is represented by a vertical supply curve.

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.

Money Demand

People choose to hold money instead of other assets that offer higher rates of return because money can be used to buy 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

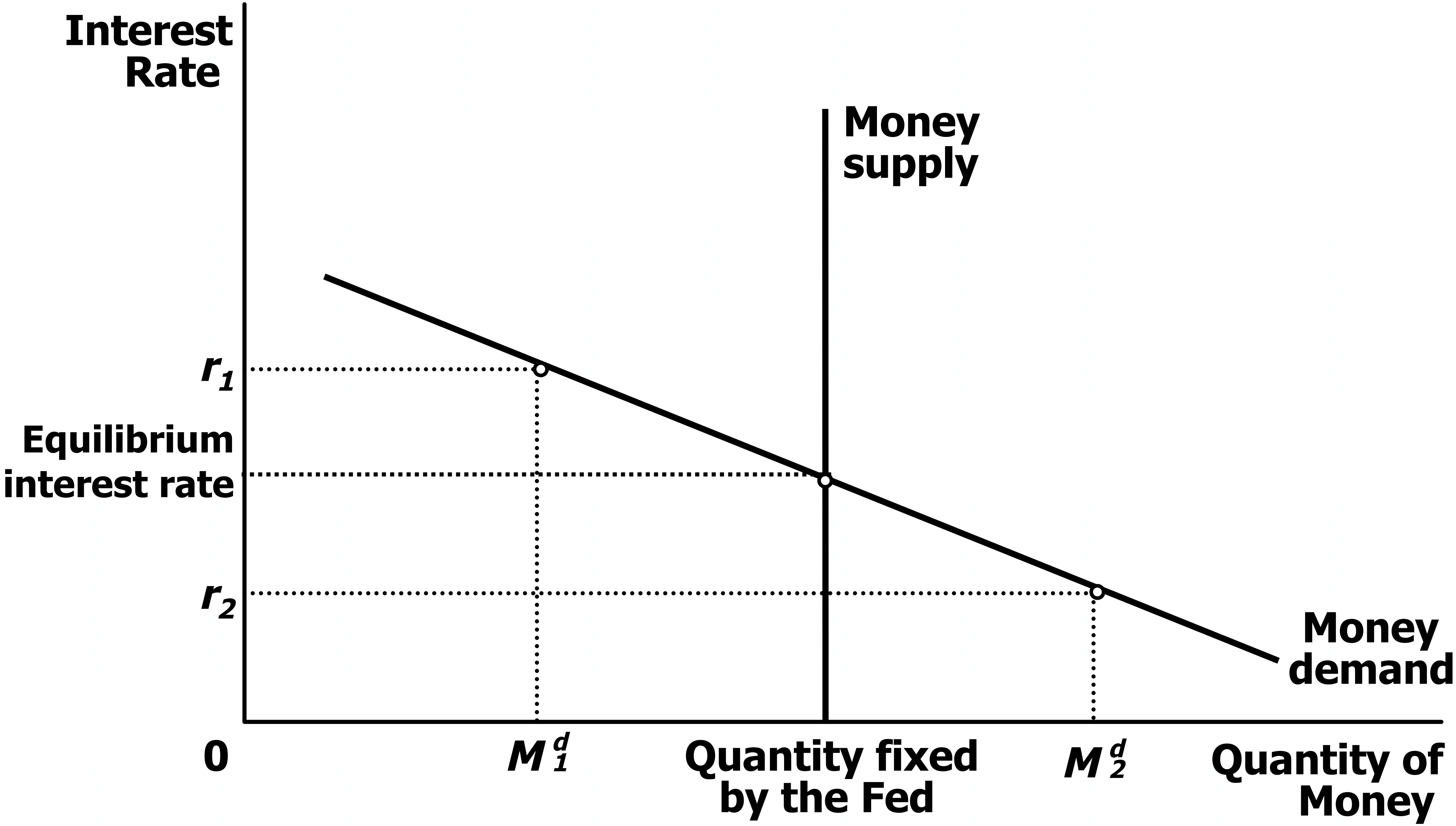
- **According to the theory of liquidity preference:**
  - **The interest rate adjusts to balance the supply and demand for money.**
  - **There is one interest rate, called the equilibrium interest rate, at which the quantity of money demanded equals the quantity of money supplied.**

Equilibrium in the Money Market

Assume the following about the economy:

- **The price level is stuck at some level.**
- **For any given price level, the interest rate adjusts to balance the supply and demand for money.**
- **The level of output responds to the aggregate demand for goods and services.**

Equilibrium in the Money Market...



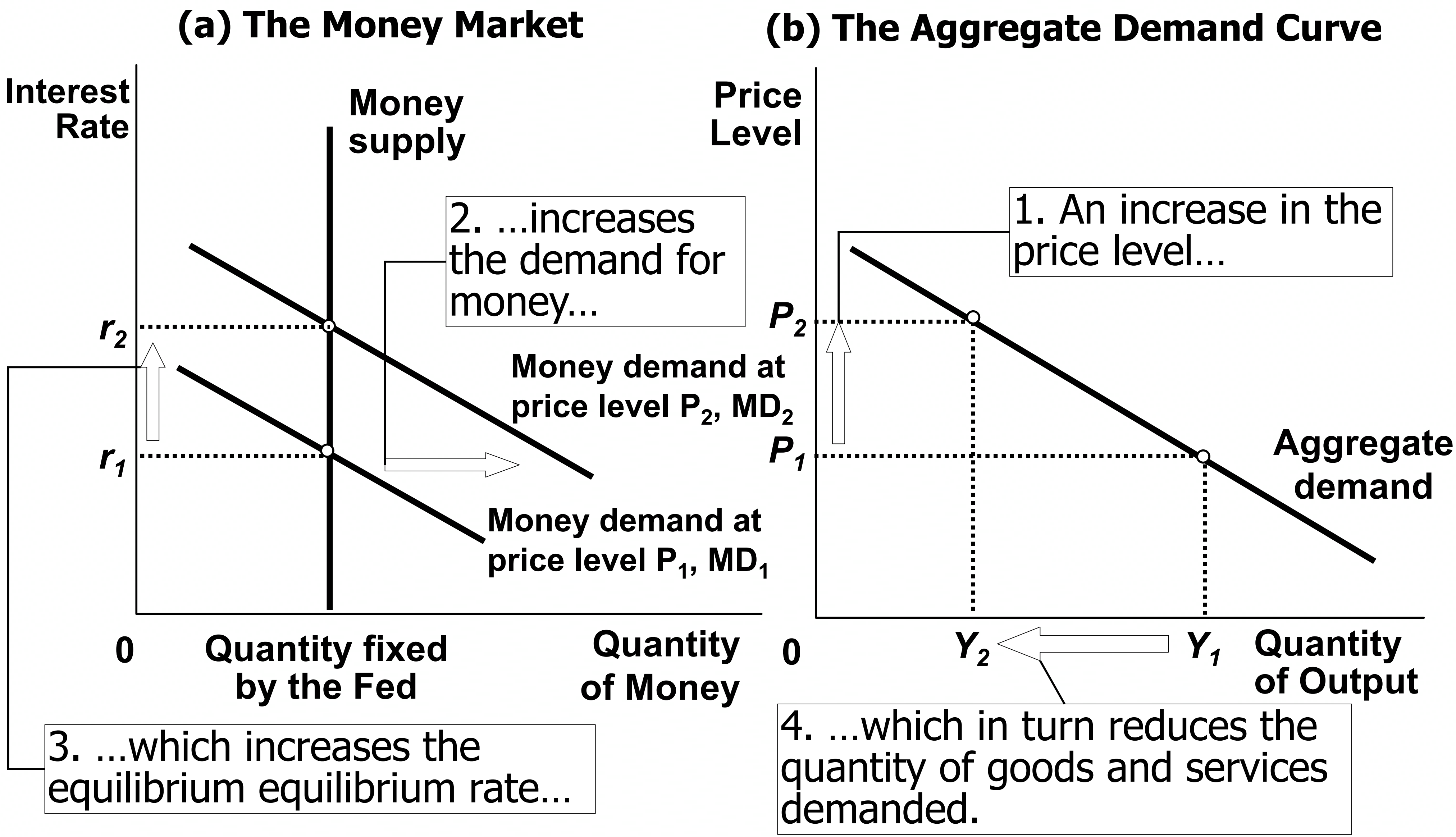
The Downward Slope of the Aggregate Demand Curve

- The price level is one determinant of the quantity of money demanded.
- A higher price level increases the quantity of money demanded for any given interest rate.
- Higher money demand leads to a higher interest rate.
- The quantity of goods and services demanded falls.

The Downward Slope of the Aggregate Demand Curve

The end result of this analysis is a negative relationship between the price level and the quantity of goods and services demanded.

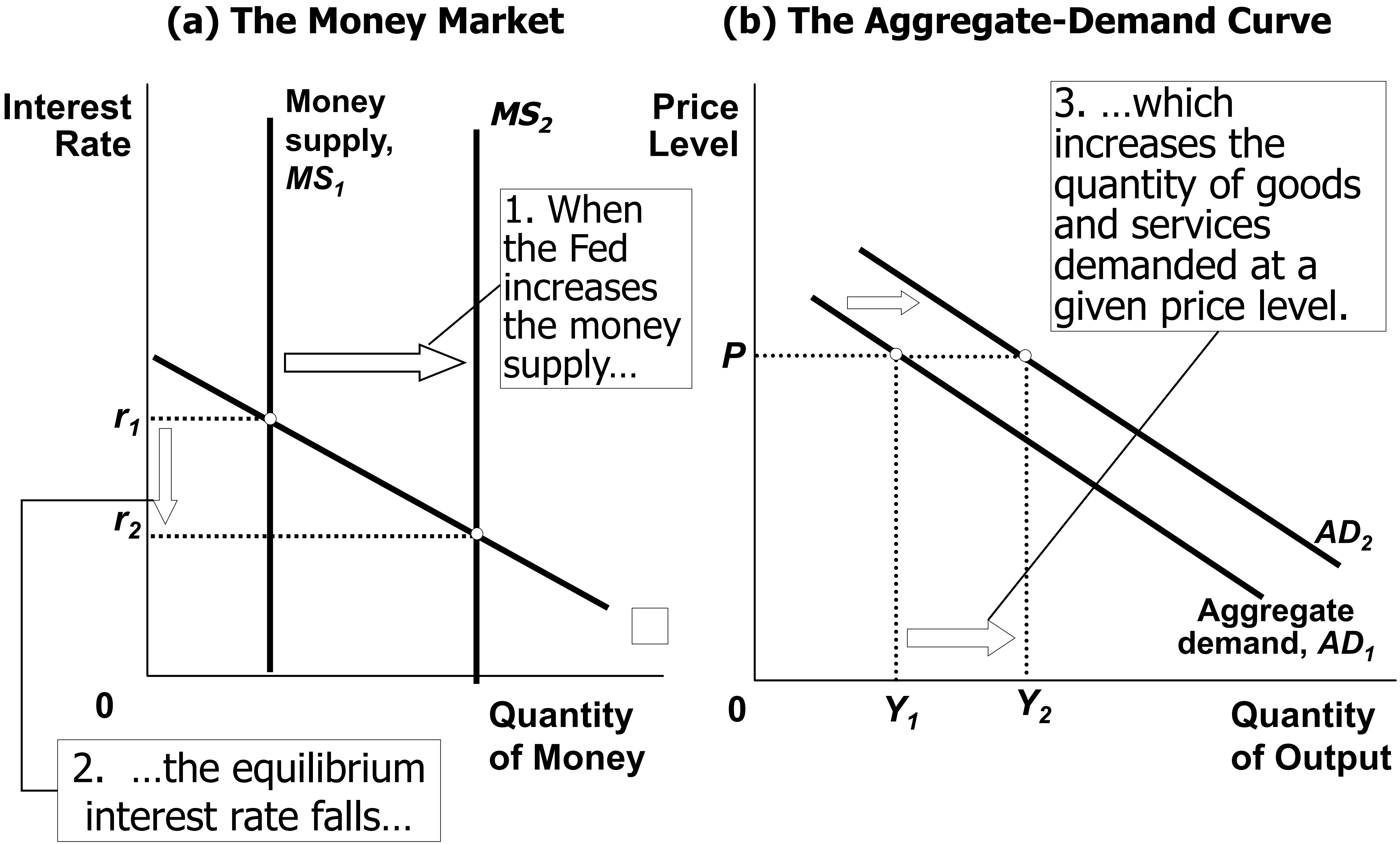
The Money Market and the Slope of the Aggregate Demand Curve...



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...



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.**

The Role of Interest-Rate Targets in Fed Policy

- Monetary policy can be described either in terms of the money supply or in terms of the interest rate.
- Changes in monetary policy can be viewed either in terms of a changing target for the interest rate or in terms of a change in the money supply.
- A target for the federal funds rate affects the money market equilibrium, which influences aggregate demand.

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.**

Changes in Government Purchases

- When policymakers change the money supply or taxes, the effect on aggregate demand is indirect – through the spending decisions of firms or households.
- When the government alters its own purchases of goods or services, it shifts the aggregate-demand curve directly.

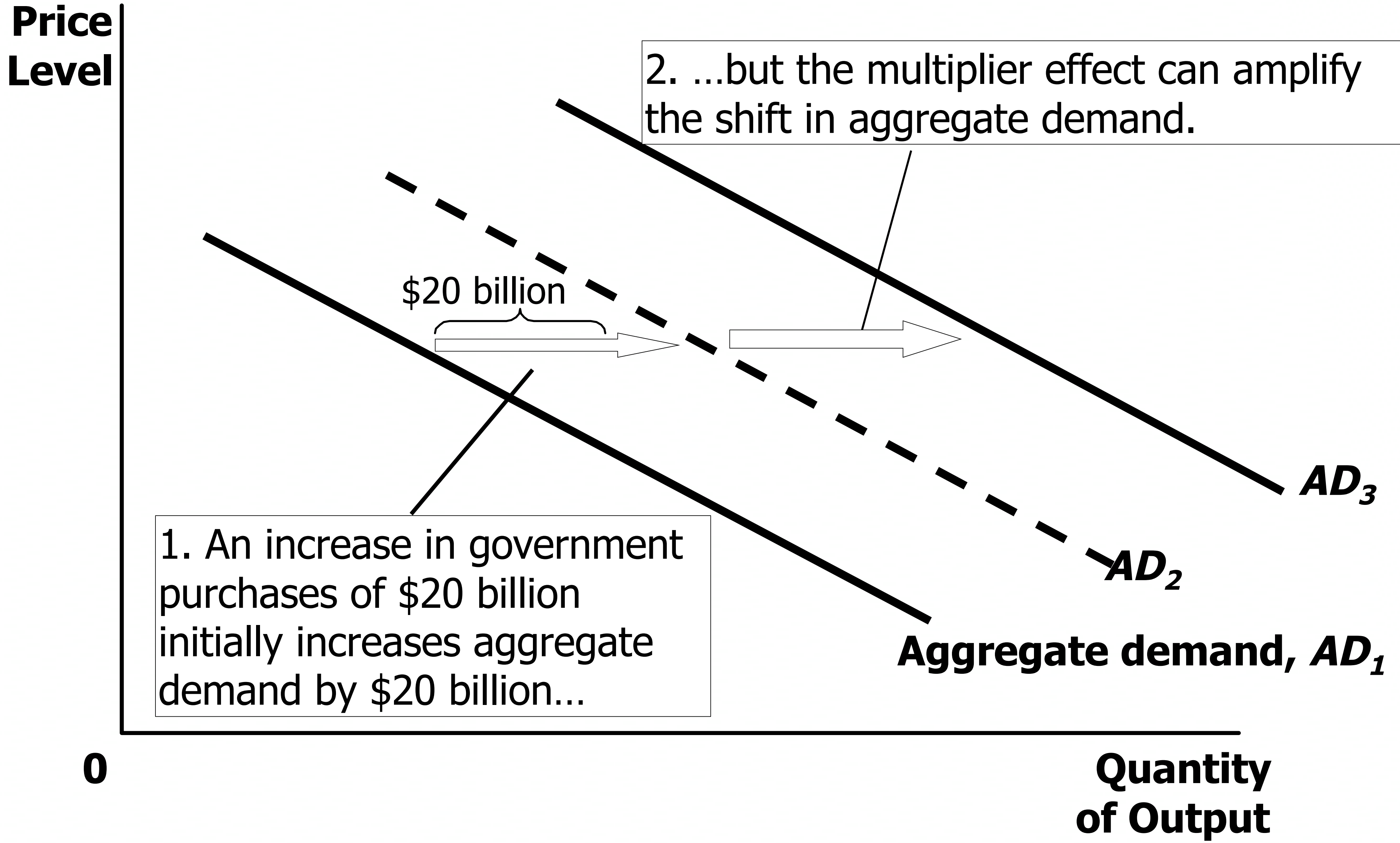
Changes in Government Purchases

- 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.

The Multiplier Effect...



A Formula for the Spending Multiplier

- **The formula for the multiplier is:**

Multiplier = 1/(1 - 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.**

A Formula for the Spending Multiplier

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

Multiplier = 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.