Aggregate Demand

RIDLEY COLLEGE
SINCE 1889

Assessment Objectives

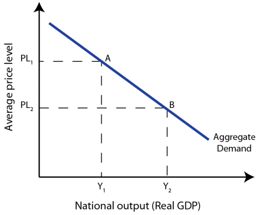
Specific Expectations	
2.A	Define (using graphs as appropriate) the aggregate demand (AD) curve.
2.A	Explain (using graphs as appropriate) the slope of the AD curve and its determinants.

Aggregate Demand (AD)

- **Aggregate Demand (AD)** is the total amount of real output (real GDP) that consumers, firms, the government and foreigners want to buy at each possible price level, over a particular time period.
- The difference between microeconomics "demand" and macroeconomics "aggregate demand (AD)" is that AD considers:
  - All consumers domestic and foreign, of a nation's output of all goods and services.
  - The general, or average price level (APL). Not just the price of a particular good.
  - The quantity of output produced by all firms in all industries in a nation, not just the quantity produced of a particular good.

Aggregate Demand Curve

- **Aggregate Demand (AD) Curve** shows the relationship between the total amount of real output demanded by the four components and the economy's price level over a particular time period.
  - It is downward sloping, indicating a negative relationship between the price level and aggregate output demanded.
  - The negative slope of the AD curve shows that at lower price levels more of a nation's output is demanded, while at higher price levels less output is demanded.



Aggregate Demand: Movement Along the Curve

- Households, firms, the government, and foreigners will demand more of a country's goods and services as their average prices fall, and less as their prices rise.

  The aggregate demand (AD) curve slopes downward for three reasons:

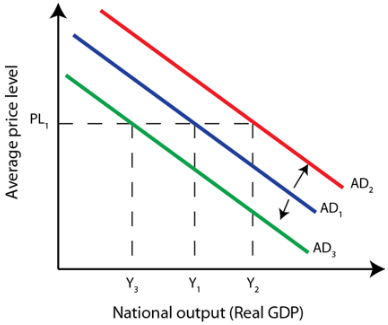
  1. **Wealth effect:** higher price levels reduce the purchasing power or the real value of households' wealth and savings.
     - The public feels poorer (richer) at higher (lower) price levels, thus demand at a lower (higher) quantity of the country's output when price levels are high (low).
  2. **Real interest rate effect:** in response to a rise in the price level, banks will raise the interest rates on loans to households and firms who wish to consume or invest.
     - At higher (lower) interest rates, the quantity demanded of products and capital for which households and firms must borrow money decreases (increases), as buyers face higher (lower) borrowing costs.

Aggregate Demand: Movement Along the Curve

3. **Net export effect (Exchange rate effect):** looks at how a change in a country's average price levels affects the flow of exports and imports
   - As the price level falls (rises), all else equal, goods and services produced in that country become more (less) attractive to foreign consumers.
   - Domestic consumers find imports less (more) attractive as they now appear relatively more (less) expensive. As a result, the net expenditures on the nation's goods rise (fall) as price level falls (rises).

Aggregate Demand: Curve Shifts

- When a determinant of one or more of the components of AD changes, the entire AD curve will shift in or out, and the quantity of output demanded at every price level will change.



Determinants of Aggregate Demand (AD)

- **Determinants of Aggregate Demand (AD)** are factors that cause shifts in the aggregate demand curve; includes factors that influence **consumption spending (C)**, **investment spending (I)**, **government spending (G)**, and **net exports (X − M)**.
  - A rightward shift from AD_1 to AD_2 means that aggregate demand increases: for any price level, a larger amount of real GDP is demanded.
  - A leftward shift from AD_1 to AD_3 means that aggregate demand decreases; for any price level, a smaller amount of real GDP is demanded.

1. **Causes of changes in consumption spending, ΔC**
   - **Changes in consumer confidence:** the sentiment among consumers around future income levels and the state of the economy
   - **Changes in interest rates:** some consumer spending is financed by borrowing, and so influenced by interest rate changes.

Determinants of Aggregate Demand (AD)

- **Changes is wealth:** where wealth is the value of assets that people own minus debt to banks and other financial institutions.
- **Change in income taxes:** if the government increases income taxes, then consumer disposable income falls and consumption will fall. While, lower taxes will result in more consumption.
- **Changes in the level of household indebtedness:** lower household debt and expectations of increases in future income will increase aggregate demand.
- **Expectations of future price levels:** when higher (lower) prices are anticipated, households tend to consumer more (less) today.

2. **Causes of changes in investment spending, ΔI**
   - **Changes in business confidence:** the degree of optimism among firms about their sales and economic activity.
   - **Changes in interest rates:** there is an inverse relationship between the interest rate and the level of investment in a country.

Determinants of Aggregate Demand (AD)

- **Changes (improvements) in technology:** Improvements in technology stimulate investment spending.
- **Changes in business taxes:** the level of government intervention in the form of taxation and regulation can influence the level of investment in a country.
- **The level of corporate indebtedness:** if business have high levels of debt due to past borrowing, they will be less willing to make investments.
- **Legal/institution changes:** the legal and institutional environment in which businesses operate may impact investment spending.

3. **Causes of changes in government spending, ΔG**
    - **Changes in political priorities:** government's have many expenditures which may change in response to changes in its priorities.
    - **Fiscal policy:** refers to the government's use of taxation and government spending to either stimulate or contract the level of economic activity in a country

Determinants of Aggregate Demand (AD)

4. **Causes of changes in net exports, Δ (X $-$M)**
   - **Changes in national income abroad:** when foreign incomes rise, a country can expect its net exports to increase as foreigners are likely to demand more of the country's exports.
   - **Changes in exchange rates:** a decrease in the exchange rate of a country's currency will cause net exports to increase.
   - **Changes in trade policies or the level of trade protection:** where trade protection refers to restrictions to free international trade often imposed by governments.
   - **Changes in relative price levels:** when a country's goods appear relatively cheap to potential trading partners, demand for its exports tends to increase.

Determinants of Aggregate Demand (AD): Summary

- Aggregate demand increases with the following:
  1. Increase in **consumer spending (C)** due to:
     - Higher consumer confidence
     - Lower interest rates (expansionary monetary policy)
     - Higher household wealth & Lower levels of household indebtedness
     - Lower personal income taxes (expansionary fiscal policy)
  2. Increase in **investment spending (I)** due to:
     - Higher business confidence
     - Lower interest rates & business taxes (expansionary monetary policy)
     - Improvements in technology
     - Lower levels of corporate indebtedness
     - Favourable legal/institutional changes
  3. Increase in **government spending (G)**
     - Expansionary fiscal policy
  4. Increase in **net exports (X−M)**
     - Increased national income abroad
     - Lower exchange rate
     - Export promotion and import substitution

Determinants of Aggregate Demand (AD): Summary

- Aggregate demand decreases with the following:
  1. Decrease in **consumer spending (C)** due to:
     - Lower consumer confidence
     - Higher interest rates (contractionary monetary policy)
     - Lower household wealth & Higher levels of household indebtedness
     - Higher personal income taxes (contractionary fiscal policy)
  2. Decrease in **investment spending (I)** due to:
     - Lower business confidence
     - Higher interest rates & business taxes (contractionary monetary policy)
     - Higher levels of corporate indebtedness
     - Unfavourable legal/institutional changes
  3. Decrease in **government spending (G)**
     - Contractionary fiscal policy
  4. Decrease in **net exports (X−M)**
     - Lower national income abroad
     - Higher exchange rate

Test your understanding

Question: Using diagrams, show the impact of each of the following on the aggregate demand curve; explain what happens to aggregate demand in each case; and identify the component(s) of aggregate expenditure involved.

1. Consumer confidence improves as consumers become more optimistic about economic conditions.
2. The government decides to increase taxes on firms' profits.
3. Firms become fearful that a recession is about to begin.
4. The government decides to increase its spending on health care services.
5. There is a decline in the real estate market (average house prices fall).
6. The central bank (a government organization) decides to increase interest rates.

Test your understanding (Continued)

7. There is an increase in the level of indebtedness of consumers and firms.
8. Real incomes in countries that purchase a large share of country A's exports fall; examine the impact on aggregate demand in country A.
9. The government lowers personal income taxes (taxes on income of households).
10. New legislation makes property rights more secure.
11. There is an appreciation (an increase) in the value of the euro relative to the US dollar; examine the impact on aggregate demand in euro zone countries.
12. There is appreciation (an increase) in the value of the euro relative to the US dollar; examine the impact on aggregate demand in the United States.

Summary

- **Enduring Understanding**
  - Economists use the aggregate demand–aggregate supply model to represent the relationship between the price level and aggregate output in an economy and to illustrate how output, employment, and the price level respond to macroeconomic shocks.

- **Essential Knowledge**
  - The aggregate demand (AD) curve describes the relationship between the price level and the quantity of goods and services demanded by households (consumption), firms (investment), government (government spending), and the rest of the world (net exports).
  - The negative slope of the AD curve is explained by the real wealth effect, the interest rate effect, and the exchange rate effect.
  - Any change in the components of aggregate demand (consumption, investment, government spending, or net exports) that is not due to changes in the price level leads to a shift of the AD curve.