

Aggregate Demand

by Sophia



WHAT'S COVERED

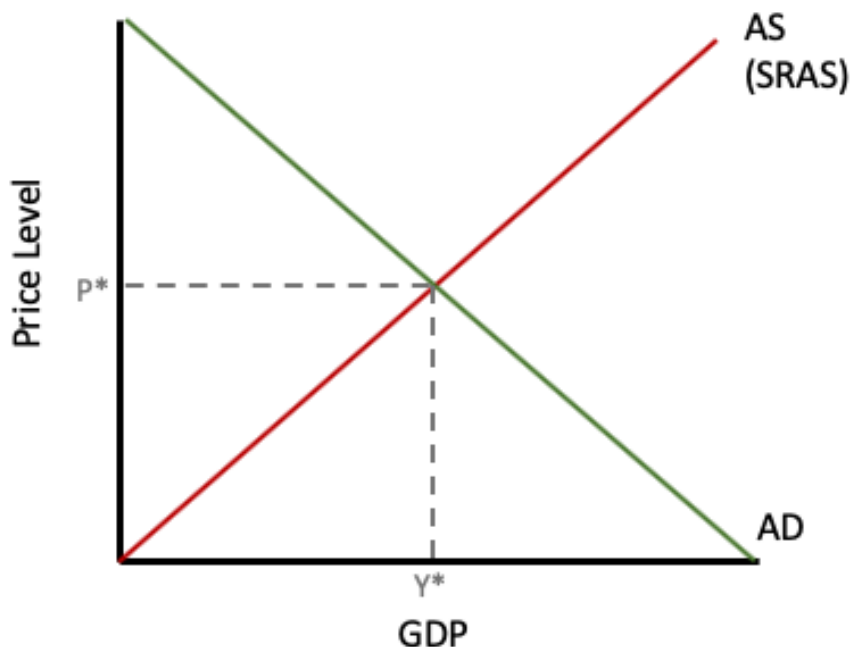
This tutorial will cover aggregate demand, discussing its definition and visual representation on a graph, as well as why it slopes downward.

Our discussion breaks down as follows:

1. Aggregate Supply/Aggregate Demand Model
2. Aggregate Demand
3. Aggregate Demand Curve and Its Slope
 - a. Wealth Effect
 - b. Interest Rate Effect
 - c. Exchange Rate Effect

1. Aggregate Supply/Aggregate Demand Model

Let's begin by looking at the aggregate supply/aggregate demand model. Note, in this tutorial, we will focus on the green line, which represents aggregate demand, but it is helpful to see how the whole model will eventually come together.



Now, in microeconomics, the x-axis generally represents quantity, but on this graph, it represents real GDP or the overall quantity in an economy.

The y-axis is the price in microeconomics; here it represents the overall price level or the price of everything in the economy.



HINT

This is the most common graph used in macroeconomics to show overall, or macroeconomic, activity. Now, real GDP, which is the x-axis, is actually real gross domestic product, or **RGDP**. This is the sum of the final value of goods and services produced over a specific time interval, within a country's borders. It is calculated across time periods using a constant price level—which is where the "real" aspect enters the equation.

When we adjust for price level changes, we are talking about real GDP. We use it to compare, from time period to time period, whether an economy is more productive or less productive.

The **price level** on the y-axis is an aggregate index value that indicates the increase in prices from one period to another. It is used to evaluate inflation across periods.

If there is movement up the y-axis, this would indicate some inflation from one time period to the next. If there is movement down, this would be an indication of deflation, or prices falling.



TERMS TO KNOW

RGDP

Real Gross Domestic Product; Gross Domestic Product (the sum of the final value of goods and services produced over a specific time interval and within a country's national borders) calculated across time periods using a constant price level.

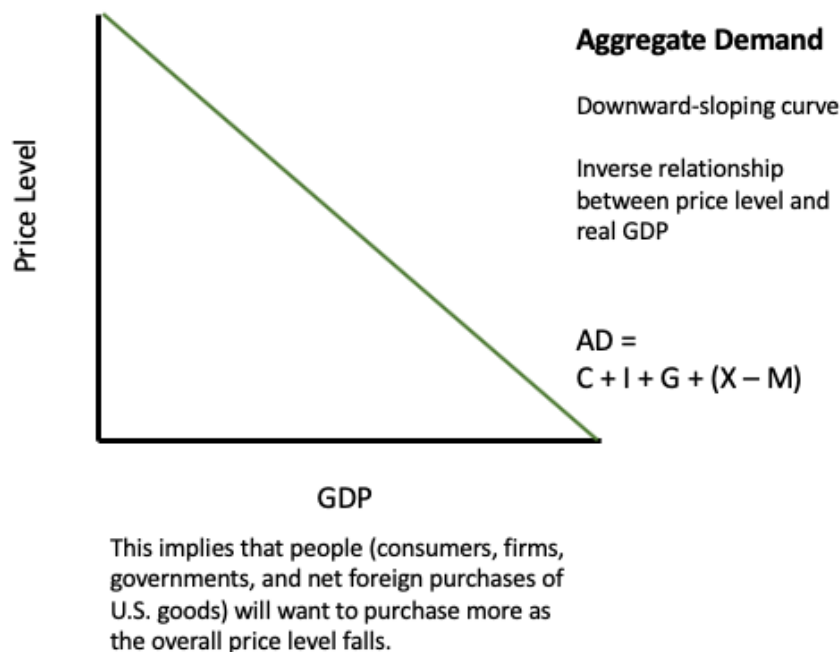
Price Level

An aggregate index value that provides an indication of the increase in prices from one period to another; used to evaluate inflation across periods.

2. Aggregate Demand

Now, let's turn to the main topic of this tutorial. **Aggregate demand** is the total amount of goods and services demanded in an economy at a specific point in time and at a prevailing price level.

So, in microeconomics, the demand referred to something more specific--the demand for shoes, the demand for houses, etc. In macroeconomics, we are talking about the demand for everything, visually represented in this graph:



Notice that it is a downward sloping curve just as it is in microeconomics, which shows an inverse relationship between the overall price level and real GDP.

This indicates that people will want to purchase more as the overall price level falls. So, as prices go down, people want to buy more. As prices go up, people want to buy less. Easy, right?

However, it is important to note that when we say "people" want to purchase more, we are actually referring to different groups of people, which comprise the aggregate demand formula.



FORMULA TO KNOW

Aggregate Demand

$$AD = C + I + G + (X - M)$$

where:

C = Consumption or consumers

I = Investment, referring to businesses or firms

G = Governments

$X - M$ = Exports minus Imports = Net foreign purchases of domestic goods

3. Aggregate Demand Curve and Its Slope

So, why does aggregate demand slope down from left to right? Why do people want to purchase more as the overall price level falls?

Well, there are three reasons, starting with the wealth effect.

3a. Wealth Effect

The **wealth effect** states that as prices fall, people feel like they are wealthier. They feel like they have more money because things are cheaper and their money can go farther. Therefore, people tend to buy more. This is the C -component of the aggregate demand formula--consumer purchases, which is impacted by the wealth effect as prices fall. Therefore, the wealth effect is defined as the perception that wealth has increased as prices fall, resulting in an increase in consumption, C .



TERM TO KNOW

Wealth Effect

Perception that wealth has increased, resulting in an increase in consumption, C .

3b. Interest Rate Effect

The **interest rate effect** is a bit more technical. As prices in an economy fall, this increases the amount of money circulating in the economy.

When there is a lot more money circulating in the economy, this will drive down interest rates.

Now, with the wealth effect, if things are cheaper, people might buy more of almost everything--more shoes, more clothes, etc. With the interest rate effect, the things impacted are interest rate sensitive, meaning more durable goods, or things that require loans.

⇒ **EXAMPLE** People are not going to go grocery shopping more because interest rates are down, but they might start to purchase more cars, houses, appliances, or furniture.

Again, C , or consumption, will be impacted, but specifically for items that require loans. Firms or businesses (I) will also take advantage of lower rates during these times, and tend to make investments in their company. So really when we look at what components are impacted with the interest rate effect, it is C and I .

So the interest rate effect here defined for you says that as interest rates fall, consumption increases due to the decrease in the cost of borrowing. As a result, purchases and business investment (Consumption, C , and Investment, I , respectively) both increase.



TERM TO KNOW

Interest Rate Effect

As interest rates fall, consumption increases due to the decrease in the cost of borrowing; as a result, purchases and business investment (Consumption, C, and investment, I, respectively) both increase.

3c. Exchange Rate Effect

Finally, we have the **exchange rate effect**. As price levels in our country fall, our goods become relatively cheaper to foreigners, as our exchange rate falls against theirs.

Therefore, foreigners will tend to buy more from us, which will increase this X-component, or exports. We also tend to buy less from other countries, now that our dollars will not go as far when purchasing items from other countries, so our imports (M) may decrease.

⇒ **EXAMPLE** For example, when our goods and services become cheaper to foreigners, we might see more people from other countries vacationing here. In addition, we may vacation less in other countries, as it will impact our actual physical purchases of goods in other countries. Again, this is impacting our exports and imports.

The exchange rate effect, then, is defined as exchange rate movements and how they impact demand. Domestic currency depreciation, meaning that one country's currency is weaker relative to other countries--increases the cost of imports, resulting in a potential decrease in imports, or M. That lower domestic exchange rate, though, increases what foreigners demand for domestic goods, increasing exports, or X.



TERM TO KNOW

Exchange Rate Effect

Exchange rate movements impact demand; domestic currency depreciation increases the cost of imports, resulting in a potential decrease in imports, M; the lower domestic exchange rate increases foreign demand for domestic goods, increasing exports, X.



SUMMARY

We began today's lesson by looking at an **aggregate supply/aggregate demand model**, noting that the x-axis represents real GDP and the y-axis is the overall price level. We learned that **aggregate demand** looks like a downward sloping curve from left to right. We also learned that the three reasons why people want to buy more as the price level falls--hence, the downward sloping curve--are the **wealth effect**, **interest rate effect**, and **exchange rate effect**.

Source: Adapted from Sophia instructor Kate Eskra.



TERMS TO KNOW

Aggregate Demand

The total amount of goods and services demanded in an economy at a specific point in time and at a prevailing price level.

Exchange Rate Effect

Exchange rate movements impact demand; domestic currency depreciation increases the cost of imports, resulting in a potential decrease in imports, M ; the lower domestic exchange rate increases foreign demand for domestic goods, increasing exports, X .

Interest Rate Effect

As interest rates fall, consumption increases due to the decrease in the cost of borrowing; as a result, purchases and business investment (Consumption, C , and investment, I , respectively) both increase.

Price Level

An aggregate index value that provides an indication of the increase in prices from one period to another; used to evaluate inflation across periods.

RGDP

Real Gross Domestic Product; Gross Domestic Product (the sum of the final value of goods and services produced over a specific time interval and within a country's national borders) calculated across time periods using a constant price level.

Wealth Effect

Perception that wealth has increased, resulting in an increase in consumption, C .