



(https://intercom.help/kognity)



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Activity

Consider the following questions.

1. Trade is particularly important for food. Take a look in your kitchen cupboards. Which foods are imported from abroad? Did you find anything covered in chocolate?



**Figure 1.** The ingredients of a Snickers Bar come from all around the world.

Source: "Snickers bar (<https://www.flickr.com/photos/schoko-riegel/5876088032/>)" by Bodo is licensed under CC BY 2.0 (<https://creativecommons.org/licenses/by/2.0/>)

**Ingredients:** Sugar, Peanuts, Glucose Syrup, Skimmed Milk Powder, Cocoa Butter, Cocoa Mass, Sunflower Oil, Palm Fat, Lactose and Protein from Whey (from Milk), Whey Powder (from Milk), Milk Fat, Emulsifier (Soya Lecithin), Salt, Coconut Oil, Egg White Powder, Natural Vanilla Extract, Milk Protein.

Student  
view

Even though your chocolate bar might be produced locally, cocoa and palm oil are only grown on the equator. 70 per cent of the world's cocoa beans are grown in West Africa, such as the Côte d'Ivoire, Ghana, Nigeria and Cameroon. 84 per cent of the world's palm oil is produced in Indonesia and Malaysia. Without trade, many of us would live a life without chocolate!

2. Imagine you live in a world where we did not trade any more. Make a list of foods you would need to live without.

Trade allows us to access goods that are difficult or even impossible to produce within the borders of our own countries, such as coconuts that are exported from Asia to Europe. As consumers look for healthy alternatives to vegetable oils used in snack foods, the [demand for coconut has increased \(https://news.abs-cbn.com/business/02/28/19/thirst-for-coconut-helps-drive-ph-exports-to-uk-trade-envoy\)](https://news.abs-cbn.com/business/02/28/19/thirst-for-coconut-helps-drive-ph-exports-to-uk-trade-envoy).



**Figure 2.** Potato chips cooked in coconut oil.

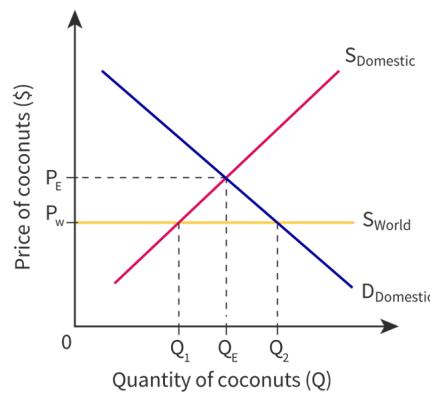
Source: "Boulder Canyon Coconut Oil Kettle Cooked Potato Chips" (<https://www.flickr.com/photos/theimpulsivebuy/20151806648/>) by theimpulsivebuy is licensed under CC BY-SA 2.0 (<https://creativecommons.org/licenses/by-sa/2.0/>)

Coconuts grow best in tropical areas such as Indonesia, the Philippines and Thailand. Although almost all countries can produce coconuts, they probably should not do so. Take Scotland, for example. If Scotland were to build large greenhouses, provide heating and fertiliser and invest in agricultural research, it could most likely produce very good coconuts. However, this would be at a much greater cost than importing them from the Philippines. Trade allows Scotland to import coconuts at a much lower cost than producing the food themselves.

## Benefits to trade for importers

Consider the situation in **Figure 3**, which shows the Scottish market for coconut. Without trade, Scotland (with the help of greenhouses and heating for each individual coconut tree) would produce an amount of coconut  $Q_E$  at a price  $P_E$ . However, since the price of each coconut would be very high, Scotland may prefer to allow imports of coconuts into the domestic market. Imported coconuts would enter the Scottish market at the world price  $P_W$ , at the world supply curve  $S_{World}$ .

✓  
 Student view



**Figure 3.** Free trade allows Scotland to enjoy more coconuts ( $Q_2$ ) at cheaper prices ( $P_W$ ).

More information for figure 3

The image is a graph showing the supply and demand for coconuts in the Scottish market, depicting how trade affects prices and quantities. The X-axis represents the Quantity of coconuts (Q), with labeled points  $Q_1$ ,  $Q_E$ , and  $Q_2$ , and the Y-axis represents the Price of coconuts (\$), with price levels  $P_E$  and  $P_W$  indicated. There are two supply lines: the domestic supply ( $S_{Domestic}$ ), which slopes upwards, and the world supply ( $S_{World}$ ), which is a flat line at the

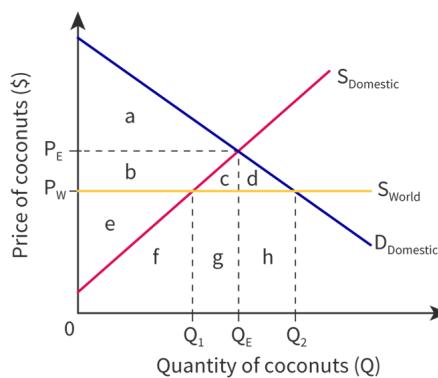
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P<sub>w</sub> price level. The demand line (D<sub>Domestic</sub>) slopes downward. Without trade, the equilibrium is at Q<sub>E</sub> with a price of P<sub>E</sub>. With trade, coconuts are imported, leading to a lower price at P<sub>w</sub>, increasing quantity consumed to Q<sub>2</sub>, while domestic production decreases to Q<sub>1</sub>. The gap between Q<sub>1</sub> and Q<sub>2</sub> is met by imports, showing the effect of trade on the coconut market in Scotland.

[Generated by AI]

After trade, Scotland can import coconuts at a much cheaper price, P<sub>w</sub>. This lower price of coconuts and coconut oil may encourage consumers to switch from vegetable oil to coconut oil. This will increase the consumption of coconut in Scotland to Q<sub>2</sub>. Scottish producers, on the other hand, will find it more difficult to sell coconuts in the domestic market, and will produce less at Q<sub>1</sub>. The gap between Q<sub>1</sub> and Q<sub>2</sub> is met by imports from abroad.

### Worked example 1



**Figure 4.** Changes in community surplus when engaged in trade.

More information for figure 4

The graph displays the relationship between the price and quantity of coconuts, illustrating changes with trade. The X-axis represents the quantity of coconuts (Q), ranging from 0 to Q<sub>2</sub>, while the Y-axis shows the price of coconuts (\$), with labels at P<sub>E</sub> and P<sub>W</sub>. There are supply and demand lines labeled S<sub>Domestic</sub>, D<sub>Domestic</sub>, and S<sub>World</sub>.

Student view

The domestic supply (S<sub>Domestic</sub>) line is diagonal from the origin upward, crossing the domestic demand (D<sub>Domestic</sub>) downward sloping line at equilibrium price P<sub>E</sub>. The world supply line (S<sub>World</sub>) is horizontal at price level P<sub>W</sub>, lower than P<sub>E</sub>. The areas on the graph are marked with lowercase letters a through h, defining regions affected by changes with trade, such as surpluses or deficits.

[Generated by AI]

Using the diagram in **Figure 4**, answer the following questions:

1. **Before trade**, how much do Scottish firms earn from selling coconuts?
2. **Before trade**, what is the consumer surplus and the producer surplus?
3. Fill in the blanks in this sentence.

**After trade**, price decreases from P<sub>E</sub> to ... and the quantity of coconuts consumed in Scotland increases from Q<sub>E</sub> to ..., where ... are produced domestically and ... are imported.

4. **After trade**, how much do Scottish firms earn from selling coconuts? And how much is spent on imports?



## 5. After trade, what is the consumer surplus and what is the producer surplus?

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1. Before trade, the equilibrium price and quantity of coconuts in Scotland is at  $P_E$  and  $Q_E$ .

Total revenue earned by Scottish firms is equal to  $P_E \times Q_E$ .

$$\text{Total revenue} = b + c + e + f + g$$

2. The consumer surplus is the triangle under the demand curve and above the equilibrium price  $P_E$ .

$$\text{Consumer surplus} = a$$

The producer surplus is the triangle above the supply curve and under the equilibrium price  $P_E$ .

$$\text{Producer surplus} = b + e$$

3. After trade, price decreases from  $P_E$  to  $P_W$ , and the quantity of coconuts consumed in Scotland increases from  $Q_E$  to  $Q_2$  where  $Q_1$  are produced domestically and  $Q_2 - Q_1$  are imported.

4. Total revenue earned by Scottish firms after trade is equal to  $P_W \times Q_1$ .

$$\text{Total revenue} = e + f$$

Total expenditure on imports is equal to  $P_W \times (Q_2 - Q_1)$ .

$$\text{Total expenditure} = g + h$$

5. The consumer surplus is the triangle under the demand curve and above the equilibrium price  $P_W$ .

$$\text{Consumer surplus} = a + b + c + d$$

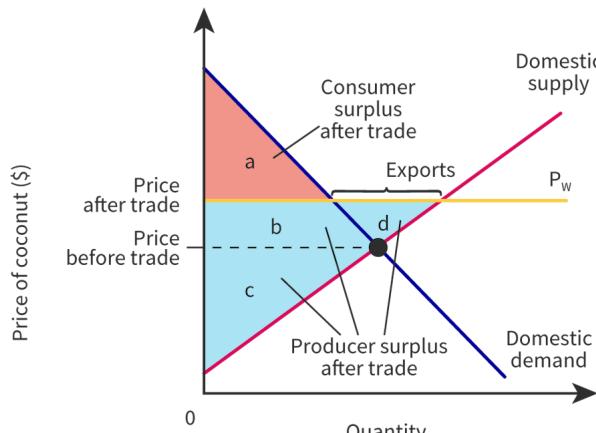
Student view

The producer surplus is the triangle above the supply curve and under the equilibrium price  $P_W$ .

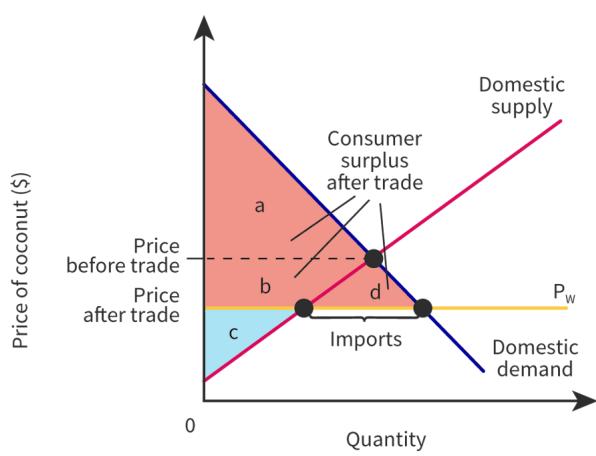
$$\text{Producer surplus} = e$$

## Benefits to trade for exporters

We have looked at the example examining the benefits to Scotland from importing coconuts. But what are the benefits to the Philippines from exporting coconuts?



(a) Exporting nations



(b) Importing nations

**Figure 5a and b.** The effects of free trade on consumer and producer surpluses for both (a) exporting nations and (b) importing nations.

More information for figure 5

Student view

The image consists of two graphs labeled as (a) and (b).

Graph (a) is for exporting nations. The X-axis represents "Quantity" and the Y-axis represents "Price of coconut (\$)" with key points labeled. This graph includes lines marked as "Domestic supply" sloping upwards and "Domestic demand" sloping downwards. It shows a price point "Price before trade" and an increased price after trade denoted as "Price after trade". A horizontal line at price  $P_w$  represents the world price. The graph highlights areas indicating consumer surplus after trade (area 'a') and producer surplus after trade (area 'b'), with 'c' and 'd' areas distinguished. Exports are represented by a bracket above  $P_w$  line.

Graph (b) is for importing nations with the same axes. The graph includes similar components with "Domestic supply" and "Domestic demand" lines crossing at pre-trade price. After trade, the price aligns with  $P_w$ , indicating imports via a segment at the intersection of domestic supply and world price. Consumer surplus after trade is area 'a', above the existing price line. Area 'b' is located below and between the price lines indicating diminished surplus due to imports, and area 'c' and 'd' denote additional import impacts. Areas are marked accordingly to indicate shifts in economic surpluses due to trade.

Both graphs visually depict economic principles of trade impacts on consumer and producer surpluses for coconuts with axes and labels included for clear comprehension.

[Generated by AI]



The Philippines is gifted with a warm climate, beautiful beaches and the perfect conditions for growing coconuts. The Philippines is such an efficient coconut producer that it can produce coconuts very cheaply under the world price. Before trade, the Philippines will produce  $Q_E$  amount of coconut at price  $P_E$  (**Figure 5a**). However, after free trade, countries such as Scotland will be eager to import cheap coconuts. The quantity of coconuts grown in the Philippines will increase. This will drive up prices from  $P_E$  to  $P_w$ . Overall, more coconuts will be produced in the Philippines at higher prices, and the benefits accruing to the Philippines is shown as the triangle in blue. At the same time, free trade will enable Scotland to increase consumption of coconuts (**Figure 5b**) at the world price  $P_w$ . The net benefits accruing to Scotland from free trade is shown as the blue triangle.

### Worked example 2

Using the diagrams above, answer the following questions.

1. **Before trade**, what is the consumer surplus in the exporting nation? What about after trade?
2. **Before trade**, what is the producer surplus in the exporting nation? What about after trade?
3. **What is the net benefit to the exporting nation from trade?**

1. Consumer surplus of the the exporting nation before trade =  $a + b$

Consumer surplus after trade =  $a$

2. Producer surplus of the the exporting nation before trade =  $c$

Producer surplus after trade =  $c + b + d$

3. As a result of trade, consumers lose consumer surplus area  $b$ . However, producers gain  $b + d$ . Area  $b$  is simply transferred from consumers to producers.

Hence, the net benefit of the exporting nation from free trade =  $d$



4. **Before trade**, what is the consumer surplus in the importing nation? What about after trade?
5. **Before trade**, what is the producer surplus in the importing nation? What about after trade?
6. **What is the net benefit to the importing nation from trade?**

4. Consumer surplus for the importing nation before trade =  $a$

Consumer surplus after trade =  $a + b + d$

5. Producer surplus for the importing nation before trade =  $b + c$

Producer surplus after trade =  $c$

6. As a result of trade for the importing nation, consumers gain consumer surplus  $b + d$ . However producers lose  $b$ .

Area  $b$  is simply transferred from consumers to producers.



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# Benefits of international trade

Overall, the world economy is better off after trade. Read about the benefits to trade below.

## Increased competition

When countries engage in trade and allow imports to flow freely into the domestic economy, it creates competition between firms. Competition drives firms to pursue the least costly method of production and become more efficient.

### Case study

#### Ford and Toyota

The USA has always been a pioneer when it comes to car manufacturing and has one of the largest automotive markets in the world. When Japan started to challenge the US car industry in the 1980s, it forced both the USA and Japan to build better cars. Over time, Japan built cars with larger engines on larger chassis. The USA moved towards building cars with better fuel efficiency. Competition between car companies is now so fierce that they compete almost car model for car model. Car manufacturers compete by producing models that are close substitutes for one another. For example, the Ford F150 is the best-selling model for pick-up trucks in the USA. Toyota released the Toyota Tundra to compete with it.



Source: "Toyota Tundra Limited Crew Cab Pick-Up (<https://www.flickr.com/photos/greggjerdingen/38970960991/>)" by Greg Gjerdingen is licensed under CC BY 2.0 (<https://creativecommons.org/licenses/by/2.0/>).



Source: "Ford F150 Harley Davidson (<https://www.flickr.com/photos/thecarspy/2641708658/>)" by The Car Spy is licensed under CC BY 2.0 (<https://creativecommons.org/licenses/by/2.0/>).

Figure 6. Ford and Toyota compete by selling almost identical pick-up trucks.

Questions to consider:

- Can you tell the difference between the two car models?
- In your city, identify some examples of similar car models produced by competing car manufacturers.

In 1913, Henry Ford utilised the assembly line system and cut the cost of car production so much that prices fell from USD 825 to only USD 575 four years later. Watching the success of the Ford motor car company, other car manufacturers quickly adopted the assembly line. You can read more [In the 1970s, Toyota developed ‘just-in-time’ manufacturing to reduce production costs. It did this by holding inventories of raw materials to a minimum and only ordering them ‘just in time’ for production. By the 1980s, the use of just-in-time manufacturing was widespread. Read more \[here\]\(https://leanmanufacturingtools.org/just-in-time-jit-production/\).](https://www.history.com>this-day-in-history/fords-assembly-line-starts-rolling</a>.</p>
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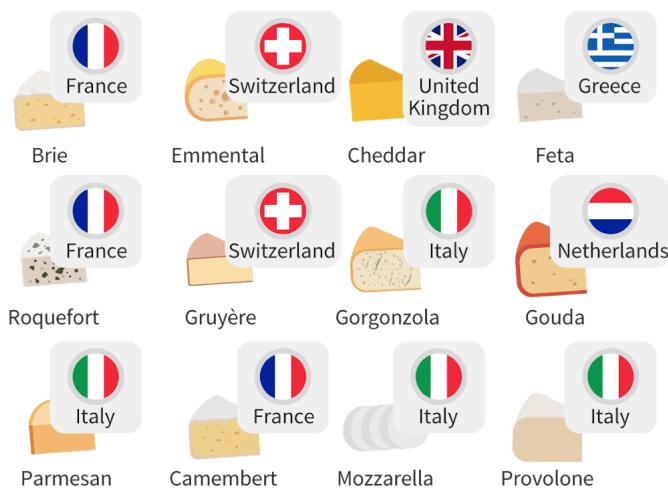
Competition forces firms to adopt new manufacturing techniques and technologies.

## Lower prices

Trade allows consumers to choose goods sold at the lowest price. Domestic firms must compete with every other firm across the globe, including online. This is very beneficial for consumers, who can enjoy the lowest prices.

## Greater choice

Trade provides consumers with greater access to a variety of goods and services, including those that they may not have been able to source, or have even seen, before. For example, there are well over 100 different types of cheese that can be sourced from all over the world. Through trade, consumers can enjoy mozzarella from Italy, cheddar from the UK or Roquefort from France.



**Figure 7.** Trade provides consumers with greater access to a variety of goods, such as cheese.

More information for figure 7

The image displays various types of cheeses associated with their countries of origin, accompanied by country flags. The cheeses and their origins are as follows:

1. Brie from France.
2. Emmental from Switzerland.
3. Cheddar from the United Kingdom.
4. Feta from Greece.

5. Roquefort from France.
6. Gruyère from Switzerland.
7. Gorgonzola from Italy.
8. Gouda from the Netherlands.
9. Parmesan from Italy.
10. Camembert from France.
11. Mozzarella from Italy.
12. Provolone from Italy.

Each cheese is visually represented alongside the flag of its respective country, with the country names written in English below each cheese icon.

[Generated by AI]

## Acquisition of resources

Every country has a different spread of natural resources. For example, Azerbaijan has oil, Zimbabwe has fertile soil and Singapore has highly-skilled [labour](https://www.bbc.com/news/education-36641283) (<https://www.bbc.com/news/education-36641283>). Trade allows countries to have access to resources that are essential for production. Japan is only able to produce steel because it can import [iron ore](https://www.riotinto.com/en/news/releases/Fifty-years-Japan-Iron-Ore) (<https://www.riotinto.com/en/news/releases/Fifty-years-Japan-Iron-Ore>) from Australia. South Korea can produce Samsung phones only because it can import oil from the Middle East. Trade makes the production of a wide range of goods possible.

## More foreign exchange earnings

Foreign exchange earnings refer to the financial gain made by selling goods and services or by exchanging currencies in global markets. Trade provides countries, such as emerging economies, with the opportunity to access [hard currencies](#). For example, Zimbabwe has experienced [hyperinflation](#), which has significantly depreciated the Zimbabwean dollar. As the Zimbabwean dollar loses value, no one outside of Zimbabwe will want to hold Zimbabwean dollars. Under these circumstances, how can the people of Zimbabwe buy imports? How would they pay for it, if no one accepts Zimbabwean dollars? This means that it is essential to have a stock of hard currencies, such as the USD, available to pay for transactions for international trade.

## Access to larger markets

Firms benefit if they have access to larger markets, as it provides them with the opportunity to trade their goods and services with more consumers and potentially sell more. For example, in the 1980s Coca-Cola and PepsiCo competed to be the first to penetrate the Chinese market with their soft drink products. Imagine if Coca-Cola successfully sold one bottle of Coke per person in China per week; how much will the firm increase its annual sales?

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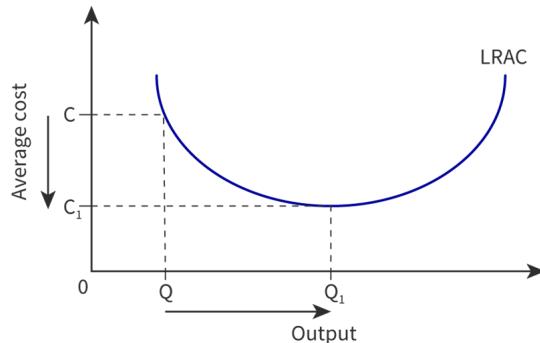


**Figure 8.** Coca-cola advertising in China.

Source: "KMB KU5091 102" ([https://commons.wikimedia.org/wiki/File:KMB\\_KU5091\\_102.jpg](https://commons.wikimedia.org/wiki/File:KMB_KU5091_102.jpg)) by Fran1001hk is licensed under CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/deed.en>)

## Economies of scale

Some industries, such as steel, are characterised by very large economies of scale. To produce steel, firms must operate vast steel furnaces. This creates very large fixed costs for steel producers. If firms have access to large markets abroad, and are able to increase the output of steel from  $Q$  to  $Q_1$ , they can spread their fixed cost across more and more units of output, leading to decreasing average costs from  $C$  to  $C_1$ .



**Figure 9.** If firms have access to larger markets, and increase output, they can take advantage of economies of scale.

More information for figure 9

The graph displays the concept of economies of scale through a Long Run Average Cost (LRAC) curve. The X-axis represents Output, while the Y-axis shows Average Cost. The curve itself is labeled LRAC and is U-shaped, demonstrating how average costs change with varying levels of output. The curve starts at a higher point on the left (average cost  $C$  for output  $Q$ ), dips down to a lower point on the Y-axis (average cost  $C_1$  for output  $Q_1$ ), indicating decreased average costs as output increases. Dashed lines show the relationship between changes in output and cost, illustrating the reduction in average costs from  $C$  to  $C_1$  as output increases from  $Q$  to  $Q_1$ . This exemplifies the concept that larger output leads to cost advantages due to economies of scale.

[Generated by AI]

An important benefit to trade is that if domestic firms are able to export steel, they can enjoy economies of scale. As firms face lower costs, they are able to decrease prices and thereby become even more competitive.

## ⌚ Making connections

As Higher level students will recall from [subtopic 2.11 \(/study/app/pp/sid-186-cid-754025/book/the-big-picture-id-29858/\)](#), firms calculate average cost or costs per unit in the following way:

Total cost = fixed cost + variable cost

Average cost = total cost

### Output

If average costs are falling, then the firm is enjoying economies of scale. This is important for a firm to know, because if the firm chooses to increase output, it can enjoy even lower average costs and the firm will be more profitable.

## More efficient resource allocation

Trade allows countries to allocate their resources to their best use. To maximise the benefits from trade, every country can specialise in the production of the good that best suits its spread of resources. For example, Qatar can specialise in oil, Zambia can specialise in copper production, Australia can specialise in wool and Germany can specialise in steel. This will allow global production to locate to its least-cost centre of production and the benefits associated with trade will be very large.

## More efficient production

Trade gives countries access to raw materials from their least-cost centre. This allows countries to produce much more cheaply and efficiently. H&M is a Swedish clothing retailer with stores around the world. In order to make the production of its suits more efficient, it utilises trade. Wool is purchased from Australia, then sent to India to be woven into woollen cloth. The cloth is then transported to Romania to be manufactured into a suit. Without access to low-cost manufacturing centres, H&M suits in Sweden would be far more expensive.

## ⊕ International Mindedness



Clearly there are many benefits from trade. Should countries work together more collaboratively to increase trade? Should we move towards more trade agreements and away from trade wars?

Complete section with 3 questions

Start questions

◀ Previous section [\(/study/app/pp/sid-186-cid-754025/book/the-big-picture-id-30650/\)](#)

Next section [▶\(/study/app/pp/sid-186-cid-754025/book/calc\)](#)

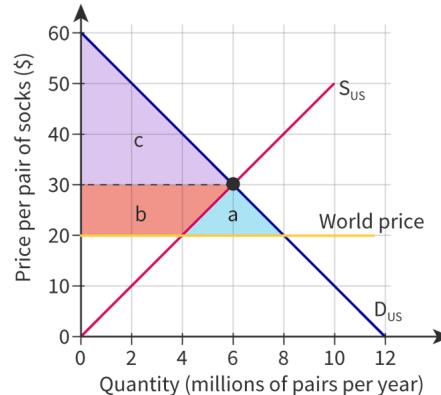


# Calculating the benefits of international trade (HL)

## Section

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As a Higher level student, you will need to be able to calculate the benefits of international trade directly from a diagram.

**Figure 1** shows the benefits of trade that arise if the USA imports socks from China.Reading  
assistance**Figure 1.** The benefits to trade for the USA importing socks from China.
[More information for figure 1](#)

The diagram is a supply and demand graph illustrating the benefits to trade for the USA importing socks from China. The graph has the Y-axis representing the price per pair of socks in dollars, ranging from \$0 to \$60. The X-axis represents the quantity of socks in millions of pairs per year, ranging from 0 to 12. Two intersecting lines represent domestic supply ( $S_{us}$ ) and demand ( $D_{us}$ ) curves. The world price line is marked horizontally at \$20.

Below the world price, the demand line intersects at 8 million pairs and the supply line intersects at 4 million pairs, indicating 4 million pairs are imported.

The area between the domestic supply curve and the world price is divided into segments labeled a, b, and c. Segment "a" represents consumer surplus gained from trade, and segments "b" and "c" represent potential losses and gains due to importation under different price conditions.

[Generated by AI]

As you can see from the diagram, at the world price (USD 20) consumers demand 8 million pairs of socks. Only 4 million are produced domestically, therefore the shortfall must be imported. Foreign firms will earn ( $\text{USD } 20 \times 4 \text{ million} = \text{USD } 80 \text{ million}$ ) in export revenue.

## Worked example 1

Refer to the diagram in **Figure 1** and answer the following questions.

1. **Before trade**, how much do US firms earn from selling socks?
2. **Before trade**, what is the consumer surplus?
3. **Before trade**, what is the producer surplus?

1. Before trade, the equilibrium price is USD 30 and the quantity of socks is 6 million pairs.

Total revenue earned by US firms is equal to  $30 \times 6$  million.

Total revenue = USD 180 million

2. The consumer surplus is the triangle under the demand curve and above the equilibrium price of USD 30.

Consumer surplus = c

Consumer surplus =  $1/2 \times 6$  million  $\times 30$

Consumer surplus = USD 90 million

3. The producer surplus is the triangle above the supply curve and under the equilibrium price of USD 30.

Producer surplus =  $1/2 \times 6$  million  $\times 30$

Producer surplus = USD 90 million

4. **After trade**, the price decreases from USD 30 to ...

5. **After trade**, the quantity of socks consumed in the USA increases from 6 million to ... pairs, where ... pairs are produced domestically and ... pairs are imported. Fill in the blanks in this sentence.

6. **After trade**, how much do US firms earn from selling socks?

7. **After trade**, what is the consumer surplus?

8. **After trade**, what is the producer surplus?

9. **After trade**, how much is spent on imports?

---

4. USD 20



5. **After trade**, the quantity of socks consumed in the USA increases from 6 million to **8 million** pairs, where **4 million** pairs are produced domestically and **4 million** pairs are imported.

6. Total revenue earned by US firms after trade is equal to USD  $20 \times 4$  million.

Total revenue = USD 80 million

7. The consumer surplus is the triangle under the demand curve and above the equilibrium price of USD 20.

Consumer surplus =  $1/2 \times 8$  million  $\times 40$

Consumer surplus = USD 160 million

8. The producer surplus is the triangle above the supply curve and under the equilibrium price of USD 20.

Producer surplus =  $1/2 \times 4$  million  $\times 20$



Producer surplus = USD 40 million

9. Total expenditure on imports is equal to  $USD 20 \times 4$  million

Total expenditure = USD 80 million

**10. What are the net benefits to free trade?**

10. The full benefit to the USA from importing socks is area a.

Net benefits =  $1/2 \times 4$  million  $\times 10$ 

Net benefits = USD 20 million

**① Exam tip**

As a Higher level student, you will need to be able to calculate the benefits of trade directly from a diagram. Don't forget you can calculate the area of a triangle through the formula of  $\frac{1}{2}$  base  $\times$  height.

**Complete section with 3 questions**[Start questions](#)[◀ Previous section \(/study/app/pp/sid-186-cid-754025/book/benefits-of-international-trade-id-30651/\)](#)[Next section ➤ \(/study/app/pp/sid-186-cid-754025/book/benefits-of-international-trade-hl-id-30652/\)](#)



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# Absolute and comparative advantage (HL)

## Section

Feedback



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Notebook If you eat Dutch cheese, use an iPhone built in China, enjoy Mexican food, drive a Japanese car, vacation in Spain and wear clothes manufactured in Bangladesh, you gain from international trade. Absolute and comparative advantage are crucial concepts in economics and international trade that you need to know, and we will examine both of them in this section.



Glossary



Reading  
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## Absolute advantage

A country has absolute advantage in the production of the goods that it produces more efficiently than the rest of the world. This means that it is able to manufacture goods at a faster rate and at a higher quality for more profit compared to a competing country. For example, India has absolute advantage in providing call centres due to a highly-educated English speaking workforce with low labour costs.

Which countries have absolute advantage in the production of the goods below?



Student  
view

Interactive 1. Countries Having Absolute Advantage in the Production of the Goods.

An interactive multiple-choice quiz explores the concept of absolute advantage, where a country can produce a good more efficiently than others. The quiz consists of three questions, each focusing on a key commodity—copper, oil, and wool—and prompting learners to identify the country with the absolute advantage in its production.

The quiz questions include,

1. Which country has an absolute advantage in copper production?

- A) Zambia
- B) Chile
- C) Australia
- (Show Answer: Chile)

2. Which country has an absolute advantage in oil production?

- A) Canada
- B) USA
- C) Saudi Arabia
- (Show Answer: Saudi Arabia)

3. Which country has an absolute advantage in wool production?

- A) Spain
- B) Nepal
- C) Australia
- (Show Answer: Australia)

Users can interact with the quiz by selecting an answer and hovering over the "Show Answer" button for instant feedback. A reset button is available allowing to retake the quiz, encouraging repeated practice and reinforcement of learning. This quiz provides insight into how countries utilize their strengths to specialize in specific industries, influencing international trade dynamics over time.

## Activity

A country has absolute advantage in the goods it produces more efficiently (with the least number of resources per unit of output) than other countries.

You can recognise if a country has absolute advantage in the production of a good if the country is able to produce it very cheaply and so dominate the market.

In what goods or services does the country you live in have absolute advantage?

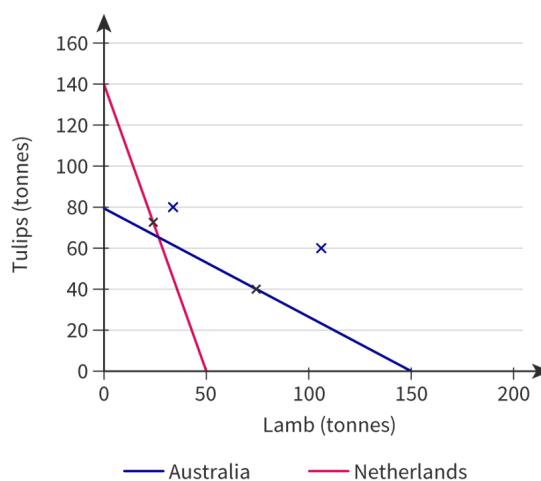
The Dutch have always been a leader in the floriculture industry, making the Netherlands one of the most dominant suppliers of flowers and flower products, such as tulips, in the world. By contrast, Australia, with its warm climate and large acreage, is a better producer of lamb than the Netherlands.

Look at **Table 1** below. If both countries direct all their resources to their respective industries, Australia will be able to produce 150 tonnes of lamb and the Netherlands can produce 140 tonnes of tulips. Alternatively, if both countries focused their attention solely on the products they are less suited for, then Australia could produce 80 tonnes of tulips and the Netherlands could produce 50 tonnes of lamb.

**Table 1.** Production possibilities table comparing absolute advantages of Australia and the Netherlands.

	Lamb (tonnes)	Tulips (tonnes)
Australia	150	80
Netherlands	50	140

Australia is said to have the absolute advantage in producing lamb, and the Netherlands in producing flowers, simply because they can produce more of their products more efficiently than the other. This is shown in **Table 1**. The information can be also shown using a production possibility curve (PPC), which is also known as a production possibility frontier (PPF). You may remember this from [subtopic 1.1 \(/study/app/pp/sid-186-cid-754025/book/the-big-picture-id-29919/\)](#). It is a very simple model that describes the production capabilities of an economy based on its endowment of scarce resources.



**Figure 1.** The production possibility curves for Australia and the Netherlands.

More information for figure 1

The image displays a graph with production possibility curves (PPC) for Australia and the Netherlands. The x-axis represents lamb production in tonnes, with intervals marked at 50, 100, 150, and 200. The y-axis represents tulip production in tonnes, with intervals at 20, 40, 60, 80, 100, 120, 140, and 160. The blue line represents Australia's PPC, and it extends along the x-axis showing higher lamb production capability. The red line represents the Netherlands' PPC and extends along the y-axis indicating higher tulip production. The graph illustrates that Australia has an absolute advantage in producing lamb whereas the Netherlands is advantaged in producing tulips, due to the further extension of their respective PPC lines in lamb and tulips.

[Generated by AI]

The graph shows that Australia has the absolute advantage in lamb because its PPC extends further on the x-axis, whereas the Netherlands has the absolute advantage in tulips because its PPC extends further on the y-axis.

### Worked example 1

Let's do an example. Look at **Table 2**.

**Table 2.** Production possibilities table comparing absolute advantages of Country A and Country B.

	Cameras	Bicycles
Country A	15	2

	Cameras	Bicycles
Country B	5	20

1. If country A channels all of its resources into the production of cameras, how many bicycles can it produce?

0 bicycles. This is because the country is channeling all of its resources into cameras; it cannot produce any bicycles. It is important to read the table properly, as Country A can produce either 15 cameras **or** 2 bicycles.

2. Which country has absolute advantage in cameras?

Country A

3. Which country has absolute advantage in bicycles?

Country B

4. Draw the PPC for both country A and country B. Place bicycles on the horizontal axis and cameras on the vertical axis.

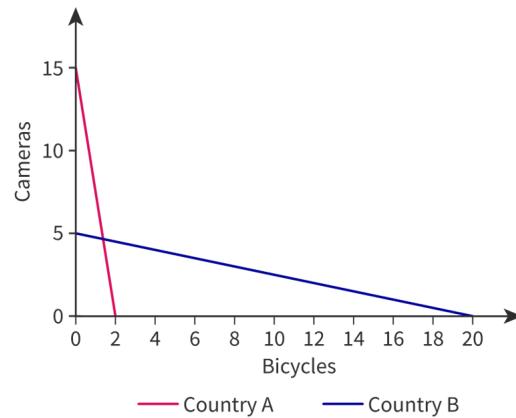


Figure 2. The PPC for countries A and B for both cameras and bicycles.

### ✓ Important

A country has **absolute advantage** when it produces goods more efficiently than any other country.



## Comparative advantage

Overview  
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In the previous examples, you can see why the gains from trade are clear: Australia has absolute advantage in lamb and the Netherlands has absolute advantage in flowers. It makes sense that Australia would specialise in lamb and export it to the Netherlands and, in exchange, receive flowers from the Netherlands. Both nations gain from international trade.

However, what if a country does **not** have absolute advantage in the production of **either** good? Can it still benefit from trade?

The theory of comparative advantage suggests that, even when a country has absolute disadvantage in the production of both goods, all countries can still gain from trade.

Some countries have particular advantages at producing some goods over other goods. There are two main sources of this comparative advantage:

- Factor endowments.** Factor endowments refer to the resources that a country has. Countries like India and China have large labour endowments, the USA is well-endowed with capital and Saudi Arabia is naturally resource-rich with crude oil.
- Levels of technology.** Some countries are able to increase productivity through improvements in technology. For example, Japan has developed robotic assembly lines to build cars and China is currently developing 6G so factories can be fully automated and operated remotely. Increasing levels and innovations in technology allow countries to produce more efficiently, providing them with a competitive edge over other countries.



**Figure 3.** This factory in China replaced 90 per cent of its workers with robots.

Credit: Getty Images Traimak\_Ivan

Let's take China and New Zealand as an example.

Look at **Table 3**. If China channels all of its resources into producing fruit, it can produce 35 tonnes. Alternatively, if it channels all of its resources into producing industrial goods, it can produce 21 tonnes. However, New Zealand is not as efficient at producing either, and can only produce 30 tonnes of fruit **or** 6 tonnes of industrial goods.

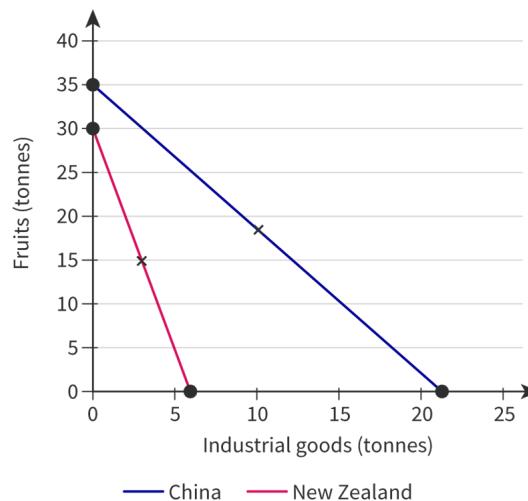
**Table 3.** Production possibilities table comparing absolute advantages of China and New Zealand.

	Fruit (tonnes)	Industrial goods (tonnes)
China	35	21
New Zealand	30	6



These points are marked in **Figure 4**, which shows the PPC for both countries.

Overview  
(/study/app-186-cid-754025/)



**Figure 4.** The production possibilities for China and New Zealand.

More information for figure 4

The graph illustrates the production possibilities for China and New Zealand, with fruits measured on the Y-axis and industrial goods on the X-axis, both in tonnes.

- The Y-axis represents fruits in tonnes, ranging from 0 to 40.
- The X-axis represents industrial goods in tonnes, ranging from 0 to 25.

China's production possibility curve is shown with a blue line, starting at 35 tonnes of fruits and 0 industrial goods, decreasing linearly to 0 fruits and 20 tonnes of industrial goods. New Zealand's curve is depicted with a red line, starting at 30 tonnes of fruits and 0 industrial goods, decreasing linearly to 0 fruits and 10 tonnes of industrial goods.

Key points: - China can produce up to 35 tonnes of fruits or 20 tonnes of industrial goods. - New Zealand can produce up to 30 tonnes of fruits or 10 tonnes of industrial goods.

[Generated by AI]



Clearly, China is better at producing both fruit and industrial goods; in other words, China has absolute advantage in both goods. How can New Zealand benefit from trade?

We need to consider comparative advantage. New Zealand can benefit from trade if it specialises in the production of the good it is best at producing compared with other goods: in other words, the good it produces with the lowest opportunity cost.

As you may recall, opportunity cost refers to the second-best *alternative forgone when choosing how to use scarce resources*. If New Zealand grows 30 tonnes of fruit, it *must forgo* 6 tonnes of industrial goods. Therefore, the opportunity cost of 30 tonnes of fruit is 6 tonnes of industrial goods, or, the opportunity cost of 1 unit of fruit is 0.2 units of industrial goods.

Let's calculate the opportunity costs for China and New Zealand using the information from **Table 4**.

**Table 4.** Opportunity costs of fruit and industrial goods for China and New Zealand.

	Fruit (tonnes)	Industrial goods (tonnes)
China	35	21
New Zealand	30	6

**Table 5.** Opportunity costs of fruit and industrial goods for China and New Zealand.

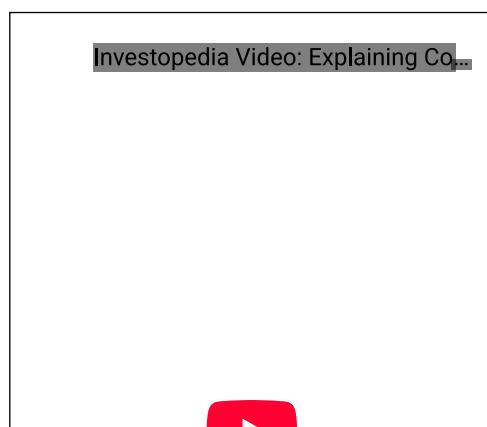
	Opportunity cost of 1 tonne of fruit	Opportunity cost of 1 tonne of industrial goods
China	$\frac{21}{35} = 0.6$ tonnes of industrial goods	$\frac{35}{21} = 1.67$ tonnes of fruit
New Zealand	$\frac{6}{30} = 0.2$ tonnes of industrial goods	$\frac{30}{6} = 5$ tonnes of fruit

According to the theory of comparative advantage, countries should specialise in the production of the good with the lowest opportunity cost. As you can see in **Table 5**, it is very cheap for China to produce industrial goods since the opportunity cost is 1.67 tonnes of fruit, versus 5 tonnes of fruit for New Zealand. China only forgoes a small amount of fruit to produce industrial goods compared with New Zealand. Therefore, China should specialise in the production of industrial goods. Similarly, New Zealand should specialise in the production of fruit, because its opportunity cost for producing a tonne of fruit is only 0.2 tonnes of industrial goods, whereas China's is 0.6.

If we apply our understanding of factor endowments, it makes sense that China, as a heavily-industrialised nation, would export industrial goods. New Zealand, on the other hand, is a large country with a small population. It is mountainous in places, but also has large areas of fertile land. There is very little pollution and a gentle climate so it is ideal for the production of fruit.

Watch the video to reinforce your understanding of the concept of absolute and comparative advantage.

✓  
Student view



## Worked example 2

Look at **Table 6**.

**Table 6.** The production possibilities for the USA and South Korea.

	Digital cameras	Wheat
USA	100	80

South Korea	Digital cameras 90	Wheat 30
-------------	-----------------------	-------------

1. Which country has absolute advantage in the production of digital cameras?
2. Which country has absolute advantage in the production of wheat?

1. The USA

The USA has absolute advantage because it is able to produce more cameras with its given resources (100) than South Korea (90).

2. The USA

The USA has absolute advantage because it is able to produce more wheat with its given resources (80) than South Korea (30).

3. What is the opportunity cost for the USA from producing one digital camera?
4. What is the opportunity cost for South Korea from producing one digital camera?

3. If the USA produces 100 cameras, it must forgo 80 bushels of wheat.

If the USA produces 1 camera, it must forgo  $\frac{80}{100} = 0.8$  bushels of wheat.

Therefore, the opportunity cost to the USA from producing 1 camera is 0.8 bushels of wheat

4. If South Korea produces 90 cameras, it must forgo 30 bushels of wheat.

If South Korea produces 1 camera, it must forgo  $\frac{30}{90} = 0.33$  bushels of wheat.

Therefore, the opportunity cost to South Korea from producing 1 camera is 1/3 of a bushel of wheat.

5. What is the opportunity cost to the USA from producing one bushel of wheat?
6. What is the opportunity cost to South Korea from producing one bushel of wheat?

5. If the USA produces 80 bushels of wheat, it must forgo 100 cameras.

If the USA produces 1 bushel of wheat, it must forgo  $\frac{100}{80} = 1.25$  cameras.

Therefore, the opportunity cost to the USA from producing one bushel of wheat is 1.25 cameras.

6. If South Korea produces 30 wheat it must forgo 90 cameras.

If South Korea produces 1 bushel of wheat, it must forgo  $\frac{90}{30} = 3$  cameras.



Therefore, the opportunity cost to South Korea from producing 1 bushel of wheat is 3 cameras.

7. According to the theory of comparative advantage, which country should produce wheat? Which one should produce cameras?

7. The USA should produce wheat, and South Korea should produce cameras.

The opportunity cost to the USA from producing one bushel of wheat is 1.25 cameras, while the opportunity cost to South Korea from producing one bushel of wheat is 3 cameras.

It costs far fewer cameras to produce wheat in the USA than it does in South Korea.

The opportunity cost to South Korea from producing one digital camera is  $\frac{1}{3}$  of a bushel of wheat, while the opportunity cost to the USA from producing one digital camera is 0.8 bushels of wheat.

It costs far fewer bushels of wheat to produce cameras in South Korea than it does in the USA.

### Be aware

Be careful not to confuse absolute and comparative advantage. A country has absolute advantage if it produces more efficiently than another country. Saudi Arabia can produce oil at USD 2.80 per barrel, which is lower than the rest of the world. However, a country has comparative advantage in the production of the good it produces at lowest opportunity cost. For example, Australia can produce both wheat and copper. However, Australia, with its large acreage and gentle climate, is far more suited to producing wheat, and is comparatively better at producing wheat than copper. Therefore, Australia has comparative advantage in producing wheat.

## The terms of trade

### Be aware

Student view

Be aware that the topic 'terms of trade' is not in the syllabus, but you could use it to develop more robust arguments while discussing comparative advantage.

The theory of comparative advantage demonstrates that when every country specialises in the production of the good for which it has the lowest opportunity cost, this will ensure that world output increases. Although world output increases, the benefits of trade may not necessarily be equally shared. Whether a country *gains from trade* depends upon the terms of trade.

Let's assume a world with only two countries: Portugal and Uruguay, which only produce chicken and fish.

Table 7. The production possibilities for Uruguay and Portugal.

	Chicken	Fish
Uruguay	100	100

	Chicken	Fish
Portugal	200	1200

**Opportunity cost: Uruguay:** 1 chicken : 1 fish

**Portugal:** 1 chicken : 6 fish

Uruguay has the lower opportunity cost for producing chicken, so Uruguay will specialise in the production of chicken, and Portugal will produce fish.

Let's assume the terms of trade ratio (exchange rate between chicken and fish) is **1 chicken : 3 fish** and work through an example.

**Before trade**, Uruguay can produce either 100 chickens or 100 fish. Let's say Uruguay would like to produce 30 fish. Faced with an opportunity cost of (**1 chicken : 1 fish**), Uruguay must **forgo 30 chickens to produce 30 fish**.

**After trade**, Uruguay can specialise in the production of the good for which it has comparative advantage, and will produce 100 chickens. According to the terms of trade (where Uruguay can trade 1 **chicken : 3 fish**) Uruguay can trade **30 chickens and receive 90 fish** from Portugal in exchange.

Clearly Uruguay benefits from trade.

Before trade, if Uruguay **forges 30 chickens, it can produce 30 fish**. But after trade, Uruguay can **trade 30 chickens to receive 90 fish** in exchange.



Getty Images Chotteeupt Hongphakaew / EyeEm

**Figure 5.** Uruguay benefits from specialising in the production of chicken.

Although Uruguay benefits from trade, can Portugal also benefit?

**Before trade**, Portugal can produce either 200 chickens or 1200 fish. Let's say Portugal would like to produce 100 chickens. Faced with an opportunity cost of (**1 chicken : 6 fish**), Portugal must **forgo 600 fish to produce 100 chickens**.

**After trade**, Portugal can specialise in the production of the good for which it has comparative advantage, and will produce 1200 fish. According to the terms of trade (where Portugal can trade **1chicken : 3 fish**) Portugal can trade **600 fish and receive 200 chickens** from Uruguay in exchange.

Portugal also benefits from trade.

Before trade, if Portugal forgoes **600 fish**, it can produce **100 chickens**. But after trade, Portugal can trade **600 fish to obtain 200 chickens**.

Both countries benefit from trade. But is this always the case?

### Worked example 3

Now, let's assume the terms of trade ratio is **1 chicken : 12 fish**.

The opportunity costs for each country are still:

**Uruguay: 1 chicken : 1 fish**

**Portugal: 1 chicken : 6 fish**

1. After trade, with a terms of trade of 1 chicken : 12 fish, Uruguay can trade **30 chickens and receive \_\_\_\_ fish** from Portugal in exchange.

360 fish

Clearly, Uruguay benefits from trade.

2. Before trade, if Uruguay forgoes 30 chickens, it can produce **\_\_\_\_ fish**. But after trade , Uruguay can trade 30 chickens to receive **\_\_\_\_ fish** in exchange.



Before trade, if Uruguay forgoes 30 chickens, it can produce **30 fish**. But after trade , Uruguay can trade 30 chickens to receive **360 fish** in exchange. Fill in the blanks.

Although Uruguay benefits from trade, can Portugal also benefit?

3. After trade, with a terms of trade of 1 chicken : 12 fish, Portugal can trade **120 fish and receive \_\_\_\_ chickens** from Uruguay in exchange.

10 chickens

Portugal does not benefit from trade.

4. Before trade, if Portugal **forges 120 fish, it can produce \_\_\_\_ chickens**. But after trade , Portugal **trades 120 fish to receive only \_\_\_\_ chickens** in exchange. Fill in the blanks.

Before trade, if Portugal forgoes 120 fish, it can produce **20** chickens. But after trade , Portugal trades 120 fish to receive only **10** chickens in exchange.

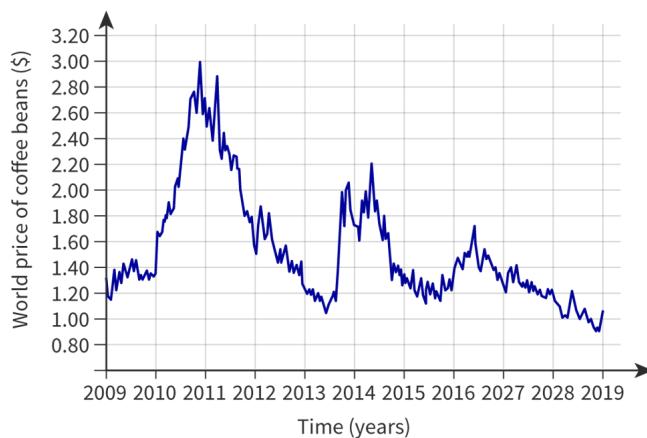
Although Uruguay benefits from trade, Portugal does not.

Although there is a net benefit in trade, the benefits are not equally shared. Whether a country benefits from international trade will depend upon the terms of trade.

## Case study

### How the world price of coffee determines the livelihoods for millions

An important component of the terms of trade is export prices. Have a look at the graph below demonstrating the world price of coffee beans over the past 10 years.



Source: "ICO ([http://www.ico.org/new\\_historical.asp](http://www.ico.org/new_historical.asp))"

Figure 6. Fluctuations in the price of coffee from 2009 to 2019.

 More information for figure 6

The graph depicts the world price of coffee beans in dollars over a period from 2009 to 2019. The X-axis represents time in years, labeled from 2009 to 2019, while the Y-axis denotes the world price of coffee beans in dollars, ranging from \$0.80 to \$3.20.

The trend begins with a sharp rise in prices from 2009, reaching a peak around 2011 at approximately \$3.00. After this peak, the prices decrease steeply to about \$1.50 by 2013. The graph shows fluctuations between 2013 and 2017, with prices hovering around \$1.50 to \$2.00, experiencing several smaller peaks during this period. By 2019, the price dips further, approaching \$1.00, showing a downward trend continuing through the decade. These fluctuations indicate significant instability in coffee prices within this timeframe.

[Generated by AI]

The downward trend in coffee prices has affected coffee growers in over 70 countries. Prices have been pushed downwards because of oversupply, from increased efficiency and new plantations in Vietnam and Brazil. 60 per cent of the world's coffee is grown in just four countries: Vietnam, Brazil, Colombia and Indonesia. But these countries aren't the ones that are suffering the most.

Burundi depends on coffee for almost 60 per cent of its export earnings. Honduras relies on coffee for 25 per cent of its export earnings, and Nicaragua for 20 per cent. It is these countries that are affected the most.

Consider these questions:

1. Draw a demand and supply diagram for coffee growers showing both demand and supply elasticity.
2. Use your diagram to explain what will happen to the price of coffee from the development of new coffee plantations in Vietnam and Brazil.



Overview

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**3. What will happen to the terms of trade for coffee producing nations?****4. Who are the winners and losers in the international coffee market over time?**

One solution for coffee growers is to form a cartel. Would it work? Read [this ↗ \(https://www.pri.org/stories/2019-09-26/low-coffee-prices-are-starving-farmers-can-cartel-fix-it\)](https://www.pri.org/stories/2019-09-26/low-coffee-prices-are-starving-farmers-can-cartel-fix-it) article. Do you agree with the viewpoint presented in the article? Why or why not?

**Complete section with 3 questions****Start questions**[◀ Previous section \(/study/app/pp/sid-186-cid-754025/book/calculating-the-benefits-of-international-trade-hl-id-30652/\)](#)[Next section ➤ \(/study/app/p](#)Student  
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Overview  
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4. The global economy / 4.1 Benefits of international trade  
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(https://intercom.help/kognity)



# Absolute and comparative advantage (HL)

## Section

Feedback



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contents



Notebook If you eat Dutch cheese, use an iPhone built in China, enjoy Mexican food, drive a Japanese car, vacation in Spain and wear clothes manufactured in Bangladesh, you gain from international trade. Absolute and comparative advantage are crucial concepts in economics and international trade that you need to know, and we will examine both of them in this section.



Glossary



Reading  
assistance

## Absolute advantage

A country has absolute advantage in the production of the goods that it produces more efficiently than the rest of the world. This means that it is able to manufacture goods at a faster rate and at a higher quality for more profit compared to a competing country. For example, India has absolute advantage in providing call centres due to a highly-educated English speaking workforce with low labour costs.

Which countries have absolute advantage in the production of the goods below?



Student  
view

Interactive 1. Countries Having Absolute Advantage in the Production of the Goods.

An interactive multiple-choice quiz explores the concept of absolute advantage, where a country can produce a good more efficiently than others. The quiz consists of three questions, each focusing on a key commodity—copper, oil, and wool—and prompting learners to identify the country with the absolute advantage in its production.

The quiz questions include,

1. Which country has an absolute advantage in copper production?

- A) Zambia
- B) Chile
- C) Australia
- (Show Answer: Chile)

2. Which country has an absolute advantage in oil production?

- A) Canada
- B) USA
- C) Saudi Arabia
- (Show Answer: Saudi Arabia)

3. Which country has an absolute advantage in wool production?

- A) Spain
- B) Nepal
- C) Australia
- (Show Answer: Australia)

Users can interact with the quiz by selecting an answer and hovering over the "Show Answer" button for instant feedback. A reset button is available allowing to retake the quiz, encouraging repeated practice and reinforcement of learning. This quiz provides insight into how countries utilize their strengths to specialize in specific industries, influencing international trade dynamics over time.

## Activity

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In what goods or services does the country you live in have absolute advantage?

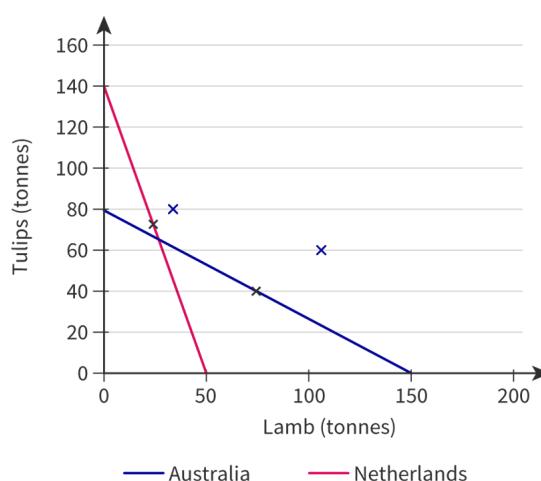
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[Generated by AI]

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2. Which country has absolute advantage in cameras?

Country A

3. Which country has absolute advantage in bicycles?

Country B

4. Draw the PPC for both country A and country B. Place bicycles on the horizontal axis and cameras on the vertical axis.

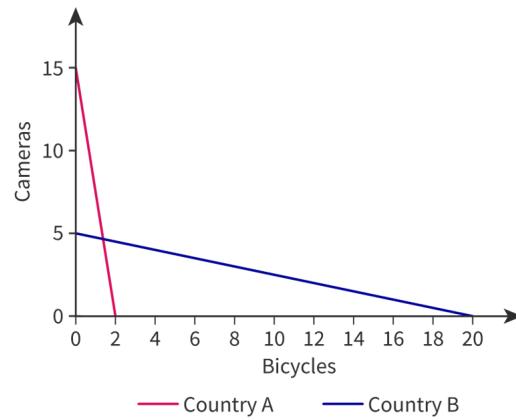


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## Comparative advantage

Overview  
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**Figure 3.** This factory in China replaced 90 per cent of its workers with robots.

Credit: Getty Images Traimak\_Ivan

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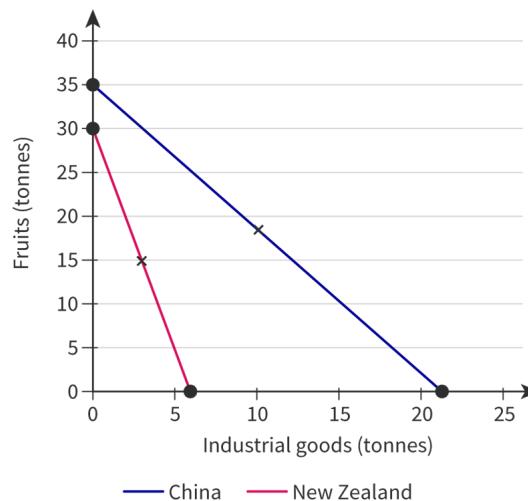
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Overview  
(/study/app-186-cid-754025/)



**Figure 4.** The production possibilities for China and New Zealand.

More information for figure 4

The graph illustrates the production possibilities for China and New Zealand, with fruits measured on the Y-axis and industrial goods on the X-axis, both in tonnes.

- The Y-axis represents fruits in tonnes, ranging from 0 to 40.
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China's production possibility curve is shown with a blue line, starting at 35 tonnes of fruits and 0 industrial goods, decreasing linearly to 0 fruits and 20 tonnes of industrial goods. New Zealand's curve is depicted with a red line, starting at 30 tonnes of fruits and 0 industrial goods, decreasing linearly to 0 fruits and 10 tonnes of industrial goods.

Key points: - China can produce up to 35 tonnes of fruits or 20 tonnes of industrial goods. - New Zealand can produce up to 30 tonnes of fruits or 10 tonnes of industrial goods.

[Generated by AI]

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Student view

Clearly, China is better at producing both fruit and industrial goods; in other words, China has absolute advantage in both goods. How can New Zealand benefit from trade?

We need to consider comparative advantage. New Zealand can benefit from trade if it specialises in the production of the good it is best at producing compared with other goods: in other words, the good it produces with the lowest opportunity cost.

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Let's calculate the opportunity costs for China and New Zealand using the information from **Table 4**.

**Table 4.** Opportunity costs of fruit and industrial goods for China and New Zealand.

	Fruit (tonnes)	Industrial goods (tonnes)
China	35	21
New Zealand	30	6

**Table 5.** Opportunity costs of fruit and industrial goods for China and New Zealand.

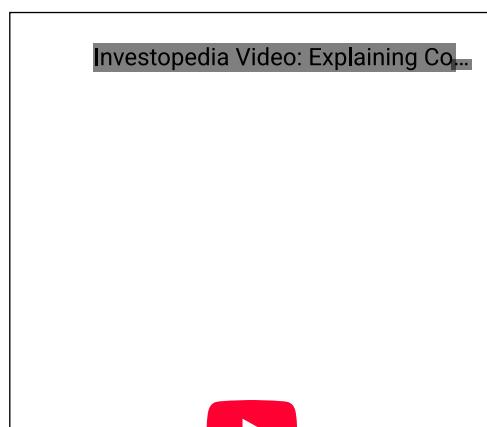
	Opportunity cost of 1 tonne of fruit	Opportunity cost of 1 tonne of industrial goods
China	$\frac{21}{35} = 0.6$ tonnes of industrial goods	$\frac{35}{21} = 1.67$ tonnes of fruit
New Zealand	$\frac{6}{30} = 0.2$ tonnes of industrial goods	$\frac{30}{6} = 5$ tonnes of fruit

According to the theory of comparative advantage, countries should specialise in the production of the good with the lowest opportunity cost. As you can see in **Table 5**, it is very cheap for China to produce industrial goods since the opportunity cost is 1.67 tonnes of fruit, versus 5 tonnes of fruit for New Zealand. China only forgoes a small amount of fruit to produce industrial goods compared with New Zealand. Therefore, China should specialise in the production of industrial goods. Similarly, New Zealand should specialise in the production of fruit, because its opportunity cost for producing a tonne of fruit is only 0.2 tonnes of industrial goods, whereas China's is 0.6.

If we apply our understanding of factor endowments, it makes sense that China, as a heavily-industrialised nation, would export industrial goods. New Zealand, on the other hand, is a large country with a small population. It is mountainous in places, but also has large areas of fertile land. There is very little pollution and a gentle climate so it is ideal for the production of fruit.

Watch the video to reinforce your understanding of the concept of absolute and comparative advantage.

✓  
Student view



## Worked example 2

Look at **Table 6**.

**Table 6.** The production possibilities for the USA and South Korea.

	Digital cameras	Wheat
USA	100	80

South Korea	Digital cameras 90	Wheat 30
-------------	-----------------------	-------------

1. Which country has absolute advantage in the production of digital cameras?
2. Which country has absolute advantage in the production of wheat?

1. The USA

The USA has absolute advantage because it is able to produce more cameras with its given resources (100) than South Korea (90).

2. The USA

The USA has absolute advantage because it is able to produce more wheat with its given resources (80) than South Korea (30).

3. What is the opportunity cost for the USA from producing one digital camera?
4. What is the opportunity cost for South Korea from producing one digital camera?

3. If the USA produces 100 cameras, it must forgo 80 bushels of wheat.

If the USA produces 1 camera, it must forgo  $\frac{80}{100} = 0.8$  bushels of wheat.

Therefore, the opportunity cost to the USA from producing 1 camera is 0.8 bushels of wheat

4. If South Korea produces 90 cameras, it must forgo 30 bushels of wheat.

If South Korea produces 1 camera, it must forgo  $\frac{30}{90} = 0.33$  bushels of wheat.

Therefore, the opportunity cost to South Korea from producing 1 camera is 1/3 of a bushel of wheat.

5. What is the opportunity cost to the USA from producing one bushel of wheat?
6. What is the opportunity cost to South Korea from producing one bushel of wheat?

5. If the USA produces 80 bushels of wheat, it must forgo 100 cameras.

If the USA produces 1 bushel of wheat, it must forgo  $\frac{100}{80} = 1.25$  cameras.

Therefore, the opportunity cost to the USA from producing one bushel of wheat is 1.25 cameras.

6. If South Korea produces 30 wheat it must forgo 90 cameras.

If South Korea produces 1 bushel of wheat, it must forgo  $\frac{90}{30} = 3$  cameras.



Therefore, the opportunity cost to South Korea from producing 1 bushel of wheat is 3 cameras.

7. According to the theory of comparative advantage, which country should produce wheat? Which one should produce cameras?

7. The USA should produce wheat, and South Korea should produce cameras.

The opportunity cost to the USA from producing one bushel of wheat is 1.25 cameras, while the opportunity cost to South Korea from producing one bushel of wheat is 3 cameras.

It costs far fewer cameras to produce wheat in the USA than it does in South Korea.

The opportunity cost to South Korea from producing one digital camera is  $\frac{1}{3}$  of a bushel of wheat, while the opportunity cost to the USA from producing one digital camera is 0.8 bushels of wheat.

It costs far fewer bushels of wheat to produce cameras in South Korea than it does in the USA.

### Be aware

Be careful not to confuse absolute and comparative advantage. A country has absolute advantage if it produces more efficiently than another country. Saudi Arabia can produce oil at USD 2.80 per barrel, which is lower than the rest of the world. However, a country has comparative advantage in the production of the good it produces at lowest opportunity cost. For example, Australia can produce both wheat and copper. However, Australia, with its large acreage and gentle climate, is far more suited to producing wheat, and is comparatively better at producing wheat than copper. Therefore, Australia has comparative advantage in producing wheat.

## The terms of trade

### Be aware

Student view

Be aware that the topic 'terms of trade' is not in the syllabus, but you could use it to develop more robust arguments while discussing comparative advantage.

The theory of comparative advantage demonstrates that when every country specialises in the production of the good for which it has the lowest opportunity cost, this will ensure that world output increases. Although world output increases, the benefits of trade may not necessarily be equally shared. Whether a country *gains from trade* depends upon the terms of trade.

Let's assume a world with only two countries: Portugal and Uruguay, which only produce chicken and fish.

Table 7. The production possibilities for Uruguay and Portugal.

	Chicken	Fish
Uruguay	100	100

	Chicken	Fish
Portugal	200	1200

Let's calculate the opportunity costs for chicken.

**Opportunity cost: Uruguay:** 1 chicken : 1 fish

**Portugal:** 1 chicken : 6 fish

Uruguay has the lower opportunity cost for producing chicken, so Uruguay will specialise in the production of chicken, and Portugal will produce fish.

Let's assume the terms of trade ratio (exchange rate between chicken and fish) is **1 chicken : 3 fish** and work through an example.

**Before trade**, Uruguay can produce either 100 chickens or 100 fish. Let's say Uruguay would like to produce 30 fish. Faced with an opportunity cost of (**1 chicken : 1 fish**), Uruguay must **forgo 30 chickens to produce 30 fish**.

**After trade**, Uruguay can specialise in the production of the good for which it has comparative advantage, and will produce 100 chickens. According to the terms of trade (where Uruguay can trade 1 **chicken : 3 fish**) Uruguay can trade **30 chickens and receive 90 fish** from Portugal in exchange.

Clearly Uruguay benefits from trade.

Before trade, if Uruguay **forges 30 chickens, it can produce 30 fish**. But after trade, Uruguay can **trade 30 chickens to receive 90 fish** in exchange.



Getty Images Chotteeupt Hongphakaew / EyeEm

**Figure 5.** Uruguay benefits from specialising in the production of chicken.

Although Uruguay benefits from trade, can Portugal also benefit?

**Before trade**, Portugal can produce either 200 chickens or 1200 fish. Let's say Portugal would like to produce 100 chickens. Faced with an opportunity cost of (**1 chicken : 6 fish**), Portugal must **forgo 600 fish to produce 100 chickens**.

**After trade**, Portugal can specialise in the production of the good for which it has comparative advantage, and will produce 1200 fish. According to the terms of trade (where Portugal can trade **1chicken : 3 fish**) Portugal can trade **600 fish and receive 200 chickens** from Uruguay in exchange.

Portugal also benefits from trade.

Before trade, if Portugal forgoes **600 fish**, it can produce **100 chickens**. But after trade, Portugal can trade **600 fish to obtain 200 chickens**.

Both countries benefit from trade. But is this always the case?

### Worked example 3

Now, let's assume the terms of trade ratio is **1 chicken : 12 fish**.

The opportunity costs for each country are still:

**Uruguay: 1 chicken : 1 fish**

**Portugal: 1 chicken : 6 fish**

1. After trade, with a terms of trade of 1 chicken : 12 fish, Uruguay can trade **30 chickens and receive \_\_\_\_ fish** from Portugal in exchange.

360 fish

Clearly, Uruguay benefits from trade.

2. Before trade, if Uruguay forgoes 30 chickens, it can produce **\_\_\_\_ fish**. But after trade , Uruguay can trade 30 chickens to receive **\_\_\_\_ fish** in exchange.



Before trade, if Uruguay forgoes 30 chickens, it can produce **30 fish**. But after trade , Uruguay can trade 30 chickens to receive **360 fish** in exchange. Fill in the blanks.

Although Uruguay benefits from trade, can Portugal also benefit?

3. After trade, with a terms of trade of 1 chicken : 12 fish, Portugal can trade **120 fish and receive \_\_\_\_ chickens** from Uruguay in exchange.

10 chickens

Portugal does not benefit from trade.

4. Before trade, if Portugal **forges 120 fish, it can produce \_\_\_\_ chickens**. But after trade , Portugal **trades 120 fish to receive only \_\_\_\_ chickens** in exchange. Fill in the blanks.



Overview  
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4. The global economy / 4.1 Benefits of international trade  
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# Absolute and comparative advantage (HL)

## Section

Feedback



Table of  
contents



Notebook If you eat Dutch cheese, use an iPhone built in China, enjoy Mexican food, drive a Japanese car, vacation in Spain and wear clothes manufactured in Bangladesh, you gain from international trade. Absolute and comparative advantage are crucial concepts in economics and international trade that you need to know, and we will examine both of them in this section.



Glossary



Reading  
assistance

## Absolute advantage

A country has absolute advantage in the production of the goods that it produces more efficiently than the rest of the world. This means that it is able to manufacture goods at a faster rate and at a higher quality for more profit compared to a competing country. For example, India has absolute advantage in providing call centres due to a highly-educated English speaking workforce with low labour costs.

Which countries have absolute advantage in the production of the goods below?

Student  
view

Interactive 1. Countries Having Absolute Advantage in the Production of the Goods.

An interactive multiple-choice quiz explores the concept of absolute advantage, where a country can produce a good more efficiently than others. The quiz consists of three questions, each focusing on a key commodity—copper, oil, and wool—and prompting learners to identify the country with the absolute advantage in its production.

The quiz questions include,

1. Which country has an absolute advantage in copper production?

- A) Zambia
- B) Chile
- C) Australia
- (Show Answer: Chile)

2. Which country has an absolute advantage in oil production?

- A) Canada
- B) USA
- C) Saudi Arabia
- (Show Answer: Saudi Arabia)

3. Which country has an absolute advantage in wool production?

- A) Spain
- B) Nepal
- C) Australia
- (Show Answer: Australia)

Users can interact with the quiz by selecting an answer and hovering over the "Show Answer" button for instant feedback. A reset button is available allowing to retake the quiz, encouraging repeated practice and reinforcement of learning. This quiz provides insight into how countries utilize their strengths to specialize in specific industries, influencing international trade dynamics over time.

## Activity

A country has absolute advantage in the goods it produces more efficiently (with the least number of resources per unit of output) than other countries.

You can recognise if a country has absolute advantage in the production of a good if the country is able to produce it very cheaply and so dominate the market.

In what goods or services does the country you live in have absolute advantage?

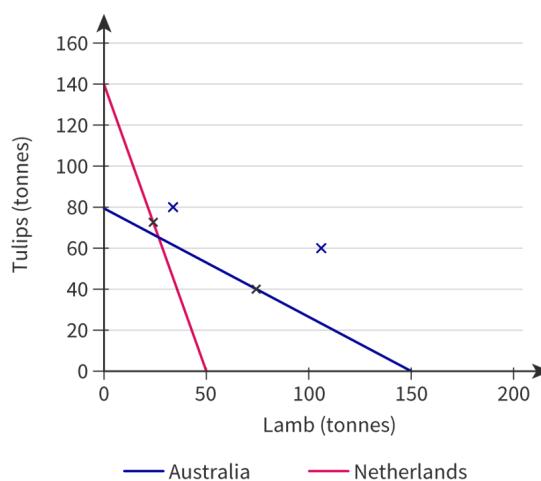
The Dutch have always been a leader in the floriculture industry, making the Netherlands one of the most dominant suppliers of flowers and flower products, such as tulips, in the world. By contrast, Australia, with its warm climate and large acreage, is a better producer of lamb than the Netherlands.

Look at **Table 1** below. If both countries direct all their resources to their respective industries, Australia will be able to produce 150 tonnes of lamb and the Netherlands can produce 140 tonnes of tulips. Alternatively, if both countries focused their attention solely on the products they are less suited for, then Australia could produce 80 tonnes of tulips and the Netherlands could produce 50 tonnes of lamb.

**Table 1.** Production possibilities table comparing absolute advantages of Australia and the Netherlands.

	Lamb (tonnes)	Tulips (tonnes)
Australia	150	80
Netherlands	50	140

Australia is said to have the absolute advantage in producing lamb, and the Netherlands in producing flowers, simply because they can produce more of their products more efficiently than the other. This is shown in **Table 1**. The information can be also shown using a production possibility curve (PPC), which is also known as a production possibility frontier (PPF). You may remember this from [subtopic 1.1 \(/study/app/pp/sid-186-cid-754025/book/the-big-picture-id-29919/\)](#). It is a very simple model that describes the production capabilities of an economy based on its endowment of scarce resources.



**Figure 1.** The production possibility curves for Australia and the Netherlands.

More information for figure 1

The image displays a graph with production possibility curves (PPC) for Australia and the Netherlands. The x-axis represents lamb production in tonnes, with intervals marked at 50, 100, 150, and 200. The y-axis represents tulip production in tonnes, with intervals at 20, 40, 60, 80, 100, 120, 140, and 160. The blue line represents Australia's PPC, and it extends along the x-axis showing higher lamb production capability. The red line represents the Netherlands' PPC and extends along the y-axis indicating higher tulip production. The graph illustrates that Australia has an absolute advantage in producing lamb whereas the Netherlands is advantaged in producing tulips, due to the further extension of their respective PPC lines in lamb and tulips.

[Generated by AI]

The graph shows that Australia has the absolute advantage in lamb because its PPC extends further on the x-axis, whereas the Netherlands has the absolute advantage in tulips because its PPC extends further on the y-axis.

### Worked example 1

Let's do an example. Look at **Table 2**.

**Table 2.** Production possibilities table comparing absolute advantages of Country A and Country B.

	Cameras	Bicycles
Country A	15	2

	Cameras	Bicycles
Country B	5	20

1. If country A channels all of its resources into the production of cameras, how many bicycles can it produce?

0 bicycles. This is because the country is channeling all of its resources into cameras; it cannot produce any bicycles. It is important to read the table properly, as Country A can produce either 15 cameras **or** 2 bicycles.

2. Which country has absolute advantage in cameras?

Country A

3. Which country has absolute advantage in bicycles?

Country B

4. Draw the PPC for both country A and country B. Place bicycles on the horizontal axis and cameras on the vertical axis.

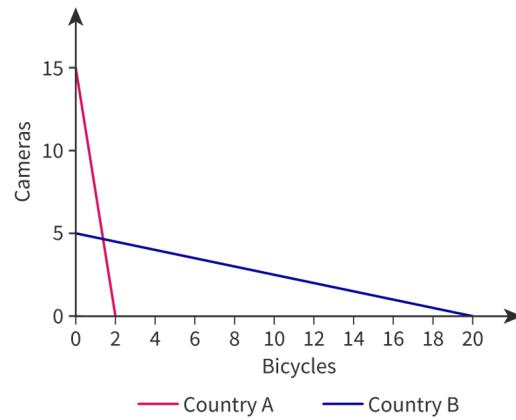


Figure 2. The PPC for countries A and B for both cameras and bicycles.

### ✓ Important

A country has **absolute advantage** when it produces goods more efficiently than any other country.



## Comparative advantage

Overview  
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In the previous examples, you can see why the gains from trade are clear: Australia has absolute advantage in lamb and the Netherlands has absolute advantage in flowers. It makes sense that Australia would specialise in lamb and export it to the Netherlands and, in exchange, receive flowers from the Netherlands. Both nations gain from international trade.

However, what if a country does **not** have absolute advantage in the production of **either** good? Can it still benefit from trade?

The theory of comparative advantage suggests that, even when a country has absolute disadvantage in the production of both goods, all countries can still gain from trade.

Some countries have particular advantages at producing some goods over other goods. There are two main sources of this comparative advantage:

- Factor endowments.** Factor endowments refer to the resources that a country has. Countries like India and China have large labour endowments, the USA is well-endowed with capital and Saudi Arabia is naturally resource-rich with crude oil.
- Levels of technology.** Some countries are able to increase productivity through improvements in technology. For example, Japan has developed robotic assembly lines to build cars and China is currently developing 6G so factories can be fully automated and operated remotely. Increasing levels and innovations in technology allow countries to produce more efficiently, providing them with a competitive edge over other countries.



**Figure 3.** This factory in China replaced 90 per cent of its workers with robots.

Credit: Getty Images Traimak\_Ivan

Let's take China and New Zealand as an example.

Look at **Table 3**. If China channels all of its resources into producing fruit, it can produce 35 tonnes. Alternatively, if it channels all of its resources into producing industrial goods, it can produce 21 tonnes. However, New Zealand is not as efficient at producing either, and can only produce 30 tonnes of fruit **or** 6 tonnes of industrial goods.

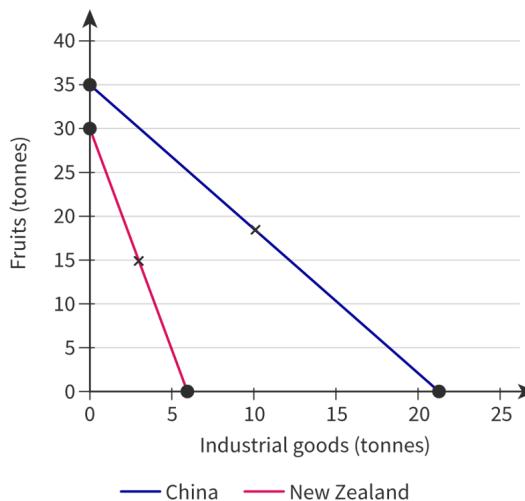
**Table 3.** Production possibilities table comparing absolute advantages of China and New Zealand.

	Fruit (tonnes)	Industrial goods (tonnes)
China	35	21
New Zealand	30	6



These points are marked in **Figure 4**, which shows the PPC for both countries.

Overview  
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**Figure 4.** The production possibilities for China and New Zealand.

More information for figure 4

The graph illustrates the production possibilities for China and New Zealand, with fruits measured on the Y-axis and industrial goods on the X-axis, both in tonnes.

- The Y-axis represents fruits in tonnes, ranging from 0 to 40.
- The X-axis represents industrial goods in tonnes, ranging from 0 to 25.

China's production possibility curve is shown with a blue line, starting at 35 tonnes of fruits and 0 industrial goods, decreasing linearly to 0 fruits and 20 tonnes of industrial goods. New Zealand's curve is depicted with a red line, starting at 30 tonnes of fruits and 0 industrial goods, decreasing linearly to 0 fruits and 10 tonnes of industrial goods.

Key points: - China can produce up to 35 tonnes of fruits or 20 tonnes of industrial goods. - New Zealand can produce up to 30 tonnes of fruits or 10 tonnes of industrial goods.

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Clearly, China is better at producing both fruit and industrial goods; in other words, China has absolute advantage in both goods. How can New Zealand benefit from trade?

We need to consider comparative advantage. New Zealand can benefit from trade if it specialises in the production of the good it is best at producing compared with other goods: in other words, the good it produces with the lowest opportunity cost.

As you may recall, opportunity cost refers to the second-best *alternative forgone when choosing how to use scarce resources*. If New Zealand grows 30 tonnes of fruit, it *must forgo* 6 tonnes of industrial goods. Therefore, the opportunity cost of 30 tonnes of fruit is 6 tonnes of industrial goods, or, the opportunity cost of 1 unit of fruit is 0.2 units of industrial goods.

Let's calculate the opportunity costs for China and New Zealand using the information from **Table 4**.

**Table 4.** Opportunity costs of fruit and industrial goods for China and New Zealand.

	Fruit (tonnes)	Industrial goods (tonnes)
China	35	21
New Zealand	30	6

**Table 5.** Opportunity costs of fruit and industrial goods for China and New Zealand.

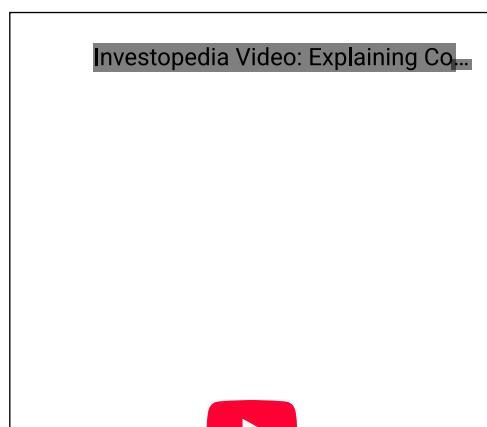
	Opportunity cost of 1 tonne of fruit	Opportunity cost of 1 tonne of industrial goods
China	$\frac{21}{35} = 0.6$ tonnes of industrial goods	$\frac{35}{21} = 1.67$ tonnes of fruit
New Zealand	$\frac{6}{30} = 0.2$ tonnes of industrial goods	$\frac{30}{6} = 5$ tonnes of fruit

According to the theory of comparative advantage, countries should specialise in the production of the good with the lowest opportunity cost. As you can see in **Table 5**, it is very cheap for China to produce industrial goods since the opportunity cost is 1.67 tonnes of fruit, versus 5 tonnes of fruit for New Zealand. China only forgoes a small amount of fruit to produce industrial goods compared with New Zealand. Therefore, China should specialise in the production of industrial goods. Similarly, New Zealand should specialise in the production of fruit, because its opportunity cost for producing a tonne of fruit is only 0.2 tonnes of industrial goods, whereas China's is 0.6.

If we apply our understanding of factor endowments, it makes sense that China, as a heavily-industrialised nation, would export industrial goods. New Zealand, on the other hand, is a large country with a small population. It is mountainous in places, but also has large areas of fertile land. There is very little pollution and a gentle climate so it is ideal for the production of fruit.

Watch the video to reinforce your understanding of the concept of absolute and comparative advantage.

✓  
Student view



## Worked example 2

Look at **Table 6**.

**Table 6.** The production possibilities for the USA and South Korea.

	Digital cameras	Wheat
USA	100	80

South Korea	Digital cameras 90	Wheat 30
-------------	-----------------------	-------------

1. Which country has absolute advantage in the production of digital cameras?
2. Which country has absolute advantage in the production of wheat?

1. The USA

The USA has absolute advantage because it is able to produce more cameras with its given resources (100) than South Korea (90).

2. The USA

The USA has absolute advantage because it is able to produce more wheat with its given resources (80) than South Korea (30).

3. What is the opportunity cost for the USA from producing one digital camera?
4. What is the opportunity cost for South Korea from producing one digital camera?

3. If the USA produces 100 cameras, it must forgo 80 bushels of wheat.

If the USA produces 1 camera, it must forgo  $\frac{80}{100} = 0.8$  bushels of wheat.

Therefore, the opportunity cost to the USA from producing 1 camera is 0.8 bushels of wheat

4. If South Korea produces 90 cameras, it must forgo 30 bushels of wheat.

If South Korea produces 1 camera, it must forgo  $\frac{30}{90} = 0.33$  bushels of wheat.

Therefore, the opportunity cost to South Korea from producing 1 camera is 1/3 of a bushel of wheat.

5. What is the opportunity cost to the USA from producing one bushel of wheat?
6. What is the opportunity cost to South Korea from producing one bushel of wheat?

5. If the USA produces 80 bushels of wheat, it must forgo 100 cameras.

If the USA produces 1 bushel of wheat, it must forgo  $\frac{100}{80} = 1.25$  cameras.

Therefore, the opportunity cost to the USA from producing one bushel of wheat is 1.25 cameras.

6. If South Korea produces 30 wheat it must forgo 90 cameras.

If South Korea produces 1 bushel of wheat, it must forgo  $\frac{90}{30} = 3$  cameras.



Therefore, the opportunity cost to South Korea from producing 1 bushel of wheat is 3 cameras.

7. According to the theory of comparative advantage, which country should produce wheat? Which one should produce cameras?

7. The USA should produce wheat, and South Korea should produce cameras.

The opportunity cost to the USA from producing one bushel of wheat is 1.25 cameras, while the opportunity cost to South Korea from producing one bushel of wheat is 3 cameras.

It costs far fewer cameras to produce wheat in the USA than it does in South Korea.

The opportunity cost to South Korea from producing one digital camera is  $\frac{1}{3}$  of a bushel of wheat, while the opportunity cost to the USA from producing one digital camera is 0.8 bushels of wheat.

It costs far fewer bushels of wheat to produce cameras in South Korea than it does in the USA.

### Be aware

Be careful not to confuse absolute and comparative advantage. A country has absolute advantage if it produces more efficiently than another country. Saudi Arabia can produce oil at USD 2.80 per barrel, which is lower than the rest of the world. However, a country has comparative advantage in the production of the good it produces at lowest opportunity cost. For example, Australia can produce both wheat and copper. However, Australia, with its large acreage and gentle climate, is far more suited to producing wheat, and is comparatively better at producing wheat than copper. Therefore, Australia has comparative advantage in producing wheat.

## The terms of trade

### Be aware

Student view

Be aware that the topic 'terms of trade' is not in the syllabus, but you could use it to develop more robust arguments while discussing comparative advantage.

The theory of comparative advantage demonstrates that when every country specialises in the production of the good for which it has the lowest opportunity cost, this will ensure that world output increases. Although world output increases, the benefits of trade may not necessarily be equally shared. Whether a country *gains from trade* depends upon the terms of trade.

Let's assume a world with only two countries: Portugal and Uruguay, which only produce chicken and fish.

Table 7. The production possibilities for Uruguay and Portugal.

	Chicken	Fish
Uruguay	100	100

	Chicken	Fish
Portugal	200	1200

Let's calculate the opportunity costs for chicken.

**Opportunity cost: Uruguay:** 1 chicken : 1 fish

**Portugal:** 1 chicken : 6 fish

Uruguay has the lower opportunity cost for producing chicken, so Uruguay will specialise in the production of chicken, and Portugal will produce fish.

Let's assume the terms of trade ratio (exchange rate between chicken and fish) is **1 chicken : 3 fish** and work through an example.

**Before trade**, Uruguay can produce either 100 chickens or 100 fish. Let's say Uruguay would like to produce 30 fish. Faced with an opportunity cost of (**1 chicken : 1 fish**), Uruguay must **forgo 30 chickens to produce 30 fish**.

**After trade**, Uruguay can specialise in the production of the good for which it has comparative advantage, and will produce 100 chickens. According to the terms of trade (where Uruguay can trade 1 **chicken : 3 fish**) Uruguay can trade **30 chickens and receive 90 fish** from Portugal in exchange.

Clearly Uruguay benefits from trade.

Before trade, if Uruguay **forges 30 chickens, it can produce 30 fish**. But after trade, Uruguay can **trade 30 chickens to receive 90 fish** in exchange.



Getty Images Chotteeupt Hongphakaew / EyeEm

**Figure 5.** Uruguay benefits from specialising in the production of chicken.

Although Uruguay benefits from trade, can Portugal also benefit?

**Before trade**, Portugal can produce either 200 chickens or 1200 fish. Let's say Portugal would like to produce 100 chickens. Faced with an opportunity cost of (**1 chicken : 6 fish**), Portugal must **forgo 600 fish to produce 100 chickens**.

**After trade**, Portugal can specialise in the production of the good for which it has comparative advantage, and will produce 1200 fish. According to the terms of trade (where Portugal can trade **1chicken : 3 fish**) Portugal can trade **600 fish and receive 200 chickens** from Uruguay in exchange.

Portugal also benefits from trade.

Before trade, if Portugal forgoes **600 fish**, it can produce **100 chickens**. But after trade, Portugal can trade **600 fish to obtain 200 chickens**.

Both countries benefit from trade. But is this always the case?

### Worked example 3

Now, let's assume the terms of trade ratio is **1 chicken : 12 fish**.

The opportunity costs for each country are still:

**Uruguay: 1 chicken : 1 fish**

**Portugal: 1 chicken : 6 fish**

1. After trade, with a terms of trade of 1 chicken : 12 fish, Uruguay can trade **30 chickens and receive \_\_\_\_ fish** from Portugal in exchange.

360 fish

Clearly, Uruguay benefits from trade.

2. Before trade, if Uruguay forgoes 30 chickens, it can produce **\_\_\_\_ fish**. But after trade , Uruguay can trade 30 chickens to receive **\_\_\_\_ fish** in exchange.



Before trade, if Uruguay forgoes 30 chickens, it can produce **30 fish**. But after trade , Uruguay can trade 30 chickens to receive **360 fish** in exchange. Fill in the blanks.

Although Uruguay benefits from trade, can Portugal also benefit?

3. After trade, with a terms of trade of 1 chicken : 12 fish, Portugal can trade **120 fish and receive \_\_\_\_ chickens** from Uruguay in exchange.

10 chickens

Portugal does not benefit from trade.

4. Before trade, if Portugal **forges 120 fish, it can produce \_\_\_\_ chickens**. But after trade , Portugal **trades 120 fish to receive only \_\_\_\_ chickens** in exchange. Fill in the blanks.

Before trade, if Portugal forgoes 120 fish, it can produce **20** chickens. But after trade , Portugal trades 120 fish to receive only **10** chickens in exchange.

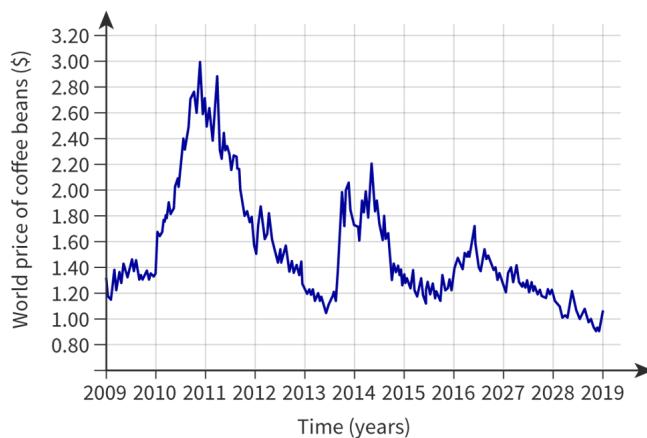
Although Uruguay benefits from trade, Portugal does not.

Although there is a net benefit in trade, the benefits are not equally shared. Whether a country benefits from international trade will depend upon the terms of trade.

## Case study

### How the world price of coffee determines the livelihoods for millions

An important component of the terms of trade is export prices. Have a look at the graph below demonstrating the world price of coffee beans over the past 10 years.



Source: "ICO ([http://www.ico.org/new\\_historical.asp](http://www.ico.org/new_historical.asp))"

Figure 6. Fluctuations in the price of coffee from 2009 to 2019.

 More information for figure 6

The graph depicts the world price of coffee beans in dollars over a period from 2009 to 2019. The X-axis represents time in years, labeled from 2009 to 2019, while the Y-axis denotes the world price of coffee beans in dollars, ranging from \$0.80 to \$3.20.

The trend begins with a sharp rise in prices from 2009, reaching a peak around 2011 at approximately \$3.00. After this peak, the prices decrease steeply to about \$1.50 by 2013. The graph shows fluctuations between 2013 and 2017, with prices hovering around \$1.50 to \$2.00, experiencing several smaller peaks during this period. By 2019, the price dips further, approaching \$1.00, showing a downward trend continuing through the decade. These fluctuations indicate significant instability in coffee prices within this timeframe.

[Generated by AI]

The downward trend in coffee prices has affected coffee growers in over 70 countries. Prices have been pushed downwards because of oversupply, from increased efficiency and new plantations in Vietnam and Brazil. 60 per cent of the world's coffee is grown in just four countries: Vietnam, Brazil, Colombia and Indonesia. But these countries aren't the ones that are suffering the most.

Burundi depends on coffee for almost 60 per cent of its export earnings. Honduras relies on coffee for 25 per cent of its export earnings, and Nicaragua for 20 per cent. It is these countries that are affected the most.

Consider these questions:

1. Draw a demand and supply diagram for coffee growers showing both demand and supply elasticity.
2. Use your diagram to explain what will happen to the price of coffee from the development of new coffee plantations in Vietnam and Brazil.



Overview

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**3. What will happen to the terms of trade for coffee producing nations?****4. Who are the winners and losers in the international coffee market over time?**

One solution for coffee growers is to form a cartel. Would it work? Read [this ↗ \(https://www.pri.org/stories/2019-09-26/low-coffee-prices-are-starving-farmers-can-cartel-fix-it\)](https://www.pri.org/stories/2019-09-26/low-coffee-prices-are-starving-farmers-can-cartel-fix-it) article. Do you agree with the viewpoint presented in the article? Why or why not?

**Complete section with 3 questions****Start questions**[◀ Previous section \(/study/app/pp/sid-186-cid-754025/book/calculating-the-benefits-of-international-trade-hl-id-30652/\)](#)[Next section ➤ \(/study/app/p](#)Student  
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Before trade, if Portugal forgoes 120 fish, it can produce **20** chickens. But after trade , Portugal trades 120 fish to receive only **10** chickens in exchange.

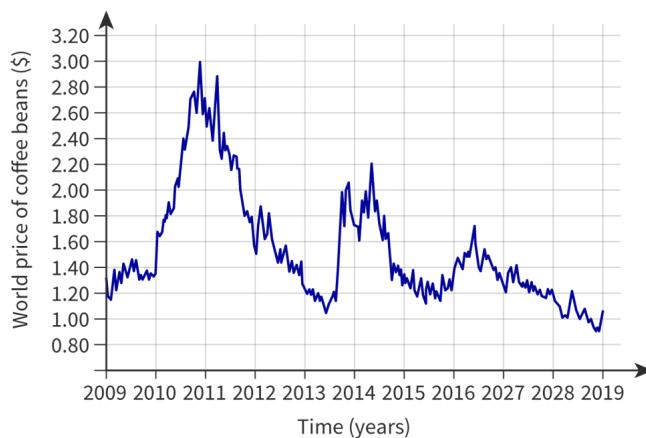
Although Uruguay benefits from trade, Portugal does not.

Although there is a net benefit in trade, the benefits are not equally shared. Whether a country benefits from international trade will depend upon the terms of trade.

## Case study

### How the world price of coffee determines the livelihoods for millions

An important component of the terms of trade is export prices. Have a look at the graph below demonstrating the world price of coffee beans over the past 10 years.



Source: "ICO ([http://www.ico.org/new\\_historical.asp](http://www.ico.org/new_historical.asp))"

Figure 6. Fluctuations in the price of coffee from 2009 to 2019.

 More information for figure 6

The graph depicts the world price of coffee beans in dollars over a period from 2009 to 2019. The X-axis represents time in years, labeled from 2009 to 2019, while the Y-axis denotes the world price of coffee beans in dollars, ranging from \$0.80 to \$3.20.

The trend begins with a sharp rise in prices from 2009, reaching a peak around 2011 at approximately \$3.00. After this peak, the prices decrease steeply to about \$1.50 by 2013. The graph shows fluctuations between 2013 and 2017, with prices hovering around \$1.50 to \$2.00, experiencing several smaller peaks during this period. By 2019, the price dips further, approaching \$1.00, showing a downward trend continuing through the decade. These fluctuations indicate significant instability in coffee prices within this timeframe.

[Generated by AI]

The downward trend in coffee prices has affected coffee growers in over 70 countries. Prices have been pushed downwards because of oversupply, from increased efficiency and new plantations in Vietnam and Brazil. 60 per cent of the world's coffee is grown in just four countries: Vietnam, Brazil, Colombia and Indonesia. But these countries aren't the ones that are suffering the most.

Burundi depends on coffee for almost 60 per cent of its export earnings. Honduras relies on coffee for 25 per cent of its export earnings, and Nicaragua for 20 per cent. It is these countries that are affected the most.

Consider these questions:

1. Draw a demand and supply diagram for coffee growers showing both demand and supply elasticity.
2. Use your diagram to explain what will happen to the price of coffee from the development of new coffee plantations in Vietnam and Brazil.



Overview

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