

## BUSINESS LESSON

# CARBON TAX THROUGH CAP AND TRADE

## TEACHER'S NOTES

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Carbon Tax Through Cap and Trade

<https://www.esldebates.com/business-carbon-tax-through-cap-and-trade/>

### Vocab matching answers

1. a
2. f
3. j
4. k
5. d
6. b
7. h
8. e
9. g
10. i
11. c

### Video Answers.

1. Greenhouse gas emissions come from the goods and services we produce and consume.
2. Economists around the world tell us that the simplest and least expensive way to correct the market failure and reduce the amount of carbon dioxide being dumped into the atmosphere is to put a price on carbon emissions.
3. Evidence shows that carbon pricing reduces emissions, stimulates innovation and raises revenues that can be recycled back into the economy.
4. This puts a direct cost on carbon emissions produced when the fuel is burned such as gasoline, diesel, natural gas or coal.
5. Direct carbon taxes offer three key benefits: emissions decline –because consumers reduce their fuel consumption when costs go up–, producers become more efficient –by adopting higher efficiency technologies and cutting waste–, and carbon tax revenue can also be used to fund environmentally beneficial projects –reduce income or employment taxes and help society adapt to climate change.
6. Carbon taxation is not new. Finland launched the world's first carbon tax in 1990, covering energy content of fuels and carbon dioxide emissions.
7. Yes, it does. Great Britain introduced a carbon tax in 2001 to reduce energy usage with revenues targeted for energy efficiency improvements and renewable energy support.
8. The Australian scheme targets the 300 largest emitters and the price will increase each year until 2015 when the country will shift to a cap and trade system. The revenues generated from the tax will be used to reduce net income, tax increase pensions, and social welfare payments.
9. In an important innovation, the tax was set to increase by 5 dollars per year through 2012; it now sits at 30 dollars per ton per year. This adds 7 cents to the cost of a litre of gasoline in British Columbia.
10. By law, all revenues from the carbon taxation are used to reduce personal and corporate income taxes. British Columbia now enjoys the lowest personal income tax for net income, and the corporate tax rates are among the lowest in the G8 countries.
11. Cap and Trade is different from carbon taxation as it targets industrial emitters and sometimes fuel suppliers.

## Warmer questions

- How concerned are you about the amount of carbon in the atmosphere?
- What have you done personally to cut your carbon emissions? Reduced your use of flights?
- What methods can industry and businesses use to cut their carbon emissions?
- What more can be done to cut carbon or other emissions?



## Reading section

### Tax, tax, and more tax

The release of carbon dioxide is said to be the main contributor to social and environmental problems, particularly global warming. This carbon dioxide pollution is considered a negative externality –which is a cost imposed on the entire society and not just certain individuals who are using or consuming polluting products, such as cars. Certain carbon-intensive industries are creating negative externalities; therefore, the social cost of production should be greater than that of the private entities. The carbon tax is thus employed to internalise such an externality, which means that the final price of goods should include both the external and the private cost.

Those who cause environmental costs should be made responsible to pay the full social cost of their actions (“Polluter Pays Principle”, 1992). Accordingly, a carbon tax aims to make individuals and corporations pay the full social cost of carbon pollution. In theory, the tax will reduce pollution and encourage more environmentally friendly alternatives. However, critics claim a tax on carbon will increase costs for business and reduce levels of investment and economic growth.

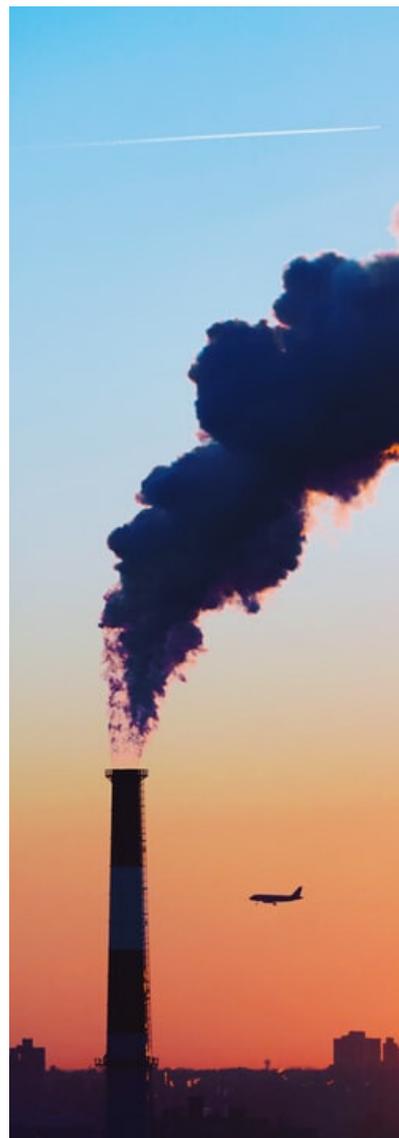
Despite the differing opinions, economists like carbon tax for its predictability. The price of carbon under cap-and-trade schemes can fluctuate with changing economic conditions and weather. Cap-and-trade schemes set a definite limit on emissions, not a fixed price on carbon. That is why a carbon tax is stable and businesses would know its price. Corporations could then invest in alternative energy efficiency based on that knowledge.

In particular, British Policy Exchange argues that companies which export carbon-intensive products into the UK must be subject to the same level of the carbon tax as domestic producers, while it stresses that environmental regulations must be restructured without reducing protection.

With all the positive intentions that carbon taxation carries, its concept still has garnered some criticisms. To come up with a reliable opinion about this subject matter, it is best to look at its pros and cons

## Questions to consider:

- Some are of the view that the Cap-and-Trade Carbon Tax raises prices and hurts businesses reducing no meaningful emissions, what happens then?
- Fraud and false information can be true in carbon markets too. Might a cap and trade system lead to another market failure?
- Is an effective regulation or the elimination of markets the answer to avert market failure?



# Vocabulary matching

Using the words on the left match them to their real definitions.

Vocab	Meaning
1. Cap and Trade	a. emissions trading, or cap and trade, is a market-based approach to controlling pollution by providing economic incentives for achieving reductions in the emissions of pollutants.
2. Greenhouse	b. a heavy petroleum fraction used as fuel in diesel engines
3. Emissions	c. a source of energy that is not depleted by use, such as water, wind, or solar power.
4. Taxation	d. a state's annual income from which public expenses are met.
5. Revenues	e. a combustible black or dark brown rock consisting mainly of carbonized plant matter, found mainly in underground deposits and widely used as fuel.
6. Diesel	f. a gas that contributes to the greenhouse effect by absorbing infrared radiation, e.g., carbon dioxide and chlorofluorocarbons.
7. Natural gas	g. material such as coal, gas, or oil that is burned to produce heat or power.
8. Coal	h. flammable gas, consisting largely of methane and other hydrocarbons, occurring naturally underground (often in association with petroleum) and used as fuel.
9. Fuels	i. (North American) a unit of weight equal to 2,000 pounds (907.19 kg).
10. Ton	j. the production and discharge of something, especially gas or radiation
11. Renewable	k. the levying of tax: money paid as tax.

## Video: Carbon Tax Through Cap and Trade

The following video was produced by the Government of Canada to better explain how Cap and Trade functions. There are many elements of law needed to ensure the process is followed by all stakeholders.



Watch the video and then answer the questions below

1. Where do greenhouse gas emissions come from?
2. How can a market failure be corrected?
3. What are the effects of carbon pricing, or levies?
4. What is a carbon tax?
5. What are the benefits of direct carbon taxes?
6. Is carbon taxation new?
7. Does Great Britain have carbon taxation?
8. How will the revenues be generated from the tax be used in Australia?
9. How is carbon taxation in British Columbia?
10. What are some of the benefits of carbon taxation?
11. What is 'Cap and Trade'?

## Advantages of having a carbon tax

- Encourages alternatives. A higher price of carbon emissions encourages firms and consumers to develop more efficient engines or alternatives to consuming carbon emissions. It will help make the transition to a post-oil economy easier.
- Raises revenue. The revenue raised from a carbon tax could be used to subsidise alternatives such as green electricity; the revenue raised could thus be used to repair the damage caused by environmental pollution. Also, a higher carbon tax could be used to reduce other taxes.
- Leads to a socially efficient outcome. It makes people pay the social cost and overcomes the excess consumption we see in a free market.
- Improves the environment. With higher taxes, firms will reduce pollution and look for alternatives which have a lower environmental impact. This could make it more feasible to generate electricity from green sources (e.g. solar power). If we develop more green sources, it will also make us less reliant on oil.

## Disadvantages of having a carbon taxation

- Expensive administration costs. The carbon tax can be really expensive, considering that the government would need a substantial amount of money for its implementation. Plus, this requires money to ensure it would function properly. It is often difficult to determine the actual external cost and the tax amount that must be imposed; said process requires more time, effort and money.
- A shift in production. It is highly possible that business establishments will move their operations to a region that has lower or no carbon tax – a place that is also known as “pollution haven”. This change of location will not exactly stop carbon dioxide production, but it will only change where and how it is produced. This would also mean that a significant number of workers would lose their jobs.
- Risk of cost increases. Many critics believe that this type of tax will increase the fossil fuel costs, which will accordingly increase expenditures that are involved in the production of goods and delivery of services.
- The possibility of tax evasion. It can be difficult to measure how much carbon is produced, and therefore difficult to know what level of tax to charge. Higher taxes may encourage firms to hide carbon emissions. In any case, it is difficult to know the true cost of carbon emissions on the environment and future generations.

## Potential debating topics

- A carbon tax should be part of the effort to combat global warming.
- Despite carbon taxation, the carbon emissions are still there.
- No significant global warming is being prevented.
- Carbon-intensive corporations are causing great harm to the planet and putting future generations at risk. They should definitely pay the full social cost of their gas emissions.
- Progress justifies the means. Business should be allowed to operate without being held accountable for the environment.



# DEBATING PLANS

## PREMIUM 30-PAGE DEBATING LESSONS ON DOZENS OF TOPICS

These lessons are extensive and includes a magazine-like introduction, a 2-page article, vocabulary section, grammar exercises, and images for discussion. To help students organize their debate, worksheets are included for appropriate language and pros and cons to get them started. In total these lesson plans offer 30 pages of activities and tasks for students.

### Environmental Crimes

Debate Lesson Plan

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Should natural features be given legal rights to protect them from pollution? This debate will target issues relating to how to legally protect the environment and criminalise pollution.

### Food Tax

Debate Lesson Plan

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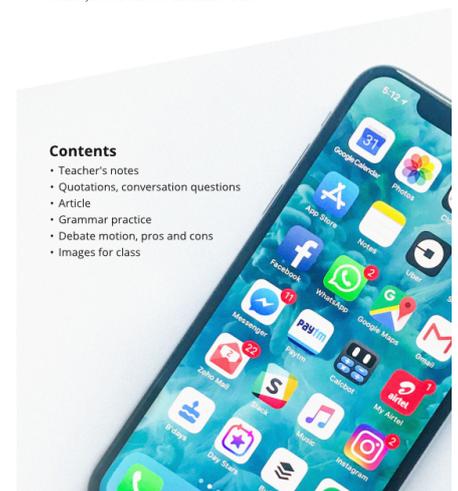


What are the best ways to tackle obesity? Some people advocate better food education, while others want to tax people to change their spending habits. Which is the most effective?

### Social Media

Debate Lesson Plan

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People are becoming increasingly concerned about social media. Discuss the main issues and find out what your students think and why.