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The purpose of writing an economic or policy analysis is to clearly and concisely convey economic theory and empirical facts in a professional manner. This document summarizes helpful tips for writing in economics, including some of the common mistakes made by students.

The examples in this document are based on the following writing prompt: Compare and contrast the relative merits of a carbon tax and a cap-and-trade policy.

1. Unless prompted, your analysis should not include personal opinions or anecdotes. For example, you should not include phrases such as, "I enjoyed reading this article," or, "I did not previously know about this topic."

In specific cases, you may be asked to summarize a body of research and draw a conclusion. Even in this scenario, your conclusion should be based on the existing research and not your personal opinion. Furthermore, the research used to draw your conclusion should be clearly represented and cited in your analysis.

2. As an undergraduate student, most of your assignments will require reviewing and summarizing existing economic research. This research should be clearly cited, both in the text and in a bibliography at the end of your writing. The only reason a statement or novel assertion would not require a citation is if it is based on your own original idea.

Correct: "One advantage of a carbon tax is that it creates a stable price to encourage future investment, as opposed to the more volatile price under cap-and-trade (Kaufman, 2016)."

Why this is correct: This statement is not an original idea of the student, and as such the source of the idea is cited in the text.

3. Use reputable sources and cite them correctly. Reputable sources include peer-reviewed academic journal articles, news articles from major newspapers, and think tank reports. Note that just because a website has a ".org" URL does not mean it is a reputable source. You should also be wary of newspaper opinion pieces that are not supported by clear and cited evidence.

Once you find a reputable source, it is important to cite it correctly and give the author credit.

Consider the following citation: Frank, Charles. "Pricing Carbon: A Carbon Tax or Cap-And-Trade." The Brookings Institution. August 12, 2014. <u>https://www.brookings.edu/blog/planetpolicy/2014/08/12/pricing-carbon-acarbon-tax-or-cap-and-trade/</u> Within the text, this citation should be referenced using, at least, the author's last name, Frank. It would be incorrect to cite this in the text as, "The Brookings Institution states..." or "Charles states...".

Be especially careful with newspaper articles. You should be citing the author's last name both in the text and in your bibliography.

- 4. Use a professional tone in your writing.
 - Avoid contractions. For example, write "do not" instead of "don't."
 - Avoid colloquialisms and idioms. Colloquialisms include phrases such as, "hit a roadblock," "fell through the cracks," "boils down to," or "digging deeper." Only use phrases or expressions that can be interpreted literally.
 - Avoid informal or vague language. For example, "The government sold a lot of permits." Not only is the use of "a lot" is informal, it is also vague. Instead write, "The government sold 1,500 permits (source here)."
- 5. Favor shorter sentences and shorter paragraphs over long sentences and long paragraphs. Shorter sentences are easier for the reader to understand.
- 6. Plan the flow of your essay in advance. You should always have an introduction and a conclusion, though for some assignments one sentence for each is sufficient. Each paragraph should have a topic and a topic sentence. Changes in topic should trigger a new paragraph.
- 7. Avoid the passive tense. Most of the time, using active tense will also result in shorter sentences (see #5 above).

Incorrect: "Wanting to decrease carbon emissions, the government could levy a carbon tax." Correct: "The government could levy a carbon tax to decrease carbon emissions."

Incorrect: "The tax is being levied by the government." Correct: "The government levies the tax."

Incorrect: "The tax is going to be levied by the government." Correct: "The government will levy the tax."

Incorrect: "The risk being the unknown quantity." Correct: "The risk is the unknown quantity."

8. Unless what you are referring to is clear, avoid using "this," "it," or "which."

Incorrect: "By setting an exact cap on pollution, the government can better regulate carbon emissions. The disadvantage of *this* is that..."

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In the example above, it is unclear what "this" is referencing: "This" could be referencing the cap on pollution, the government regulation, the carbon emission, or something from a previous sentence.

Better: "By setting an exact cap on pollution, the government can better regulate carbon emissions. The disadvantage of *this policy* is that..."

Correct: "By setting an exact cap on pollution, the government can better regulate carbon emissions. The disadvantage of *a cap on pollution* is that..."

9. In almost all cases, adverbs are not needed in professional writing and should not be used.

Examples: Obviously, the effects of climate change will continue to worsen over time. Interestingly, a carbon tax can be highly inequitable.

10. Lists should be constructed with parallel grammatical form.

Incorrect: "Some of the benefits of a carbon tax include reducing emissions, the government revenue generated, and to make progress on global climate goals."

Correct: "Some of the benefits of a carbon tax include reduced emissions, increased government revenue, and progress on global climate goals."

Further examples of parallel construction:

https://academicguides.waldenu.edu/writingcenter/grammar/parallelconstruction

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Carbon taxes and cap_and_trade are two methods of reducing carbon emissions by putting a price on carbon dioxide emissions. A carbon tax establishes a price on greenhouse gas emissions-so:___Ceompanies are charged a dollar amount for every ton of emissions they produce, and this allows the market is allowed to determine the quantity of emissions reductions. A cap-and-trade sets the quantity of emissions reductions, and this quantity can be sold to the top buyer or traded, thus letting the market determine the price. Both ways of reducing carbon emissions have their advantages and disadvantages.

The carbon tax and cap and trade are similar in a few regards. They both aim to correct an existing market failure, being that: Tthose responsible for emissions do not pay for the damages, and this leads]eading to greater levels of emissions than is socially optimal. The two methods reduce emissions by supporting the lowest-cost reduction of emissions, and both can do this without advance knowledge of when and where these emissions reductions will occur. Both methods incentivize energy-saving technologies by placing a price on carbon. Both raise revenue, through taxes in the carbon tax, and the price at which quantities are auctioned off in the cap-and-trade system. Both need specific attention to minimize unintended consequences, because putting a price on carbon can have adverse impacts on people and areas that historically have been dependent on fossil fuels and carbon (Center for Climate and Energy Solutions, 2009). Both methods also require close data collection on emissions, coverage and confirmation of that data, and enforcement of any disobedience with the policies outlined.

The carbon tax and cap_-and_-trade are also different in many ways. By setting the quantity and giving the market the freedom to establish a price, a cap-and-trade system achieves a set environmental goal, but the cost can be unknown. On the other hand, a carbon tax provides certainty about the costs of compliance by setting the price, but the resulting reductions in

Commented [SM1]: The introduction paragraph briefly and accurately defines the two policies. The majority of the essay then focuses on the writing prompt: Comparing the two policies.

Commented [SM2]: This is a good example of a transition sentence that also tells the reader the topic of the essay.

Commented [SM3]: This paragraph has a topic sentence. The reader immediately knows this will be a paragraph about the similarities between a carbon tax and cap-andtrade. The entire paragraph is related to this topic.

Commented [SM4]: The source of the ideas summarized in this paragraph is cited correctly (both author and year), and the corresponding full citation is listed in the bibliography.

Commented [SM5]: This sentence is an excellent example of parallel construction. Each portion of the list has the same grammatical form.

Commented [SM6]: A new topic triggers a new paragraph that once again has a topic sentence clearly indicating that this paragraph will be about the differences between a carbon tax and a cap and trade. quantity of carbon dioxide emissions are uncertain and are a result of market forces. A carbon tax requires a firm each year to evaluate each year how much to reduce its emissions and how much tax to pay, while with a cap-and-trade system, the more flexible system of borrowing, banking and extended compliance periods allow firms to be able to make participation decisions for the long term (Kaufman, 2016). One of the most significant differences between the two methods is how they change under different economic conditions. Under a cap-and-trade system, reduced economic growth would lower prices, while increased economic growth would cause prices to rise based on market forces. With a carbon tax, only government action would lower the amount of the tax, regardless of economic condition (Goulder, 2013).

The fundamental differences between a carbon tax and cap and trade lie in the distinction between setting the price and setting the quantity. Both methods are effective in reducing carbon emissions by putting a price on the emissions, but they do this in different ways. **Commented [SM7]:** The source of these ideas is cited correctly.

Commented [SM8]: The source of these ideas is cited correctly.

Commented [SM9]: This is a clear and concise concluding paragraph that summarizes the above paragraphs. The author does not introduce new ideas or opinions in the conclusion.

Works Cited

Center for Climate and Energy Solutions (2009). Cap and Trade vs. Taxes. Pew Center on

Climate Change. https://www.c2es.org/document/cap-and-trade-vs-taxes/.

Goulder, L., & Schein A. (2013). Carbon Taxes Versus Cap and Trade: A Critical Review.

Climate Change Economics, World Scientific. doi.org/10.1142/S2010007813500103.

Kaufman, N. (2016) Carbon Tax vs. Cap-and-Trade: What's a Better Policy to Cut Emissions?

World Resources Institute. https://www.wri.org/insights/carbon-tax-vs-cap-and-trade-

whats-better-policy-cut-emissions

Additional notes:

This essay summarizes the evidence in a concise manner without imparting personal opinion. It is well-written, with topic sentences, paragraph breaks, and an introduction and conclusion such that the reader can quickly skim the essay and understand the main arguments. The language in the essay is professional and avoids the use of idioms, colloquialisms, and vague language. Sources for the ideas described in the essay are cited in the text and listed correctly in the bibliography.

Commented [SM10]: The bibliography is formatted in a consistent manner and authors' names are listed correctly. All of the sources are reputable.