

UHLC EENR Center – UH Energy Initiative White Paper Series

Federal Pricing of Carbon – A snapshot from February 2018

On February 21 and 22, the University of Houston’s Environment, Energy, and Resources (EENR) Center, the U.H. Energy Initiative, Duke University’s Nicholas Institute for Environmental Policy Solutions, and the Duke University Energy Initiative hosted an invitation only event to review the literature surrounding the debate between pricing carbon with cap and trade or a direct tax, and discuss what we have learned about these pricing mechanisms and their future. As an innovation in such discussions, the organizers, with the assistance of the National Fiscal Association brought in experts in tax policy to interact with those who have studied the environmental, economic and political costs and benefits of cap and trade vs. direct carbon taxation.¹

Background:

Although “cap and trade” has been declared “dead” in terms of U.S. climate policy, this method for controlling greenhouse gas emissions covers over half of all economic activity in Europe, and 80-85% in California, Quebec, and Ontario (which have linked cap and trade systems).

According to the World Bank’s 2017 carbon pricing report, over 67 jurisdictions around the world, representing half of all economic activity and a quarter of all carbon emissions, have a

¹ We use the term Cap and trade for greenhouse gas emissions trading systems because that is common usage. However, many of these emissions trading systems have set-offs or offsets, which are not specifically cap and trade as that is used in the Clean Air Act Emissions Trading System.

carbon pricing mechanism.² Over three quarters of these jurisdictions use cap and trade as preferred carbon pricing mechanism.³ China has released its plan for a carbon intensity cap and trade system to control greenhouse gas emissions in that country,⁴ and cap and trade is used for this same purpose to varying degrees in Japan, New Zealand, and South Korea. Many of the other large greenhouse gas emitters that are party to the Paris Agreement (such as Brazil, Mexico, and Indonesia) have indicated that they will use cap and trade, tax and/or offset protocols to assist in meeting their greenhouse gas reduction targets.

Much like “cap and trade,” carbon taxes have similarly been declared “dead,” but in the United States, the recent enactment of the Tax Cuts and Jobs Act is estimated to add \$1.5 trillion to the federal deficit.⁵ Politically, the passage of the TCJA spurred some discussion of carbon pricing as an additional revenue source.⁶ Carbon tax as a form of greenhouse gas control has been touted as the “most efficient” means of reducing greenhouse gases by noted economists around the world,⁷ and has been used in British Columbia, and on January 9, 2018, was fast tracked for possible implementation in Washington State by Governor Jay Inslee. Though that attempt was unsuccessful, a discussion of the use of carbon taxes continues in Washington and Oregon.

In 2017, a senior group of Republicans who had leadership positions in previous presidential administrations proposed a multi-year tax on greenhouse gases for United States policy, tying it to reduction in other taxes and matching it to the expected growing costs of greenhouse gas impacts on the world.⁸ This attempt has been cited and approved of by other conservative organizations.

² WORLD BANK GRP. ET AL., STATE AND TRENDS OF CARBON PRICING (2017), https://openknowledge.worldbank.org/bitstream/handle/10986/28510/wb_report_171027.pdf?sequence=7&isAllowed=y.

³ *Id.*

⁴ *Id.*

⁵ Nash Jenkins, *The Republican Tax Plan Would Add \$1.7 Trillion to Federal Deficits*, TIME (Nov. 8, 2017, 4:28 PM), <http://time.com/5015271/republican-tax-plan-deficits-trillion/>.

⁶ See generally Shawn Tully, *How Debt Could Blow Up the Trump Economy*, FORTUNE (March 15, 2018), <http://fortune.com/2018/03/15/us-national-debt-trump-tax-cuts/>.

⁷ James A. Baker, III et al., *The Conservative Case for Carbon Dividends*, CLIMATE LEADERSHIP COUNCIL (Feb. 2017), <https://www.clcouncil.org/wp-content/uploads/2017/02/TheConservativeCaseforCarbonDividends.pdf>.

⁸ *Id.*

When the United States was considering a comprehensive economy wide greenhouse gas cap and trade program in 2008-09, there were sporadic discussions in legal and economics literature about the relative benefits of use of a carbon tax vs. the use of a cap and trade system. The time seemed right for a re-examination.

Additionally, a federal mandated carbon pricing mechanism will have a large business impact on fossil fuel energy companies. The major oil and gas companies have indicated a public support of a carbon tax but not a cap and trade system.⁹

Both a GHG cap and trade system and a GHG “tax” could either be used to raise additional funds to be spent by the government (an additional tax), or either could be made revenue neutral.

While this workshop examined a multiplicity of carbon pricing programs, one of the focuses was to compare revenue neutral carbon pricing programs. That is, if money coming into the system from consumers and taxpayers is offset (or given back to these persons in some form), which system would be politically, legally and practically best for the purpose of controlling greenhouse gas emissions in an efficient and transparent manner.

The participants were versed in legal and economic analyses of carbon pricing mechanisms. A list of related publications is included in Appendix A.

What has changed since the last federal carbon pricing debate:

Since the failure to pass the American Clean Energy and Security (“ACES”) bill in 2010, there have been many changes in both international agreements concerning climate change and the political, economic, and legal discourse surrounding carbon pricing within the United States.

Internationally, the predominant legal agreements for reducing carbon have gone from top down to bottom up, with the latest, the Paris Accord, compiling various country emissions targets. The pricing of carbon continues to be favored internationally as a greenhouse gas emission control mechanism, and more countries, and their political subunits, have embraced carbon pricing mechanisms domestically. Carbon pricing mechanisms are one of the forms of

⁹ See generally Tina Rosenberg, *Guess Who’s for a Carbon Tax Now*, NEW YORK TIMES (April 11, 2017), <https://www.nytimes.com/2017/04/11/opinion/guess-whos-for-a-carbon-tax-now.html>.

international cooperation enshrined in Article 6 of the Paris agreement.¹⁰ Most of these carbon pricing mechanisms have taken the form of cap and trade systems, with an eye towards linking systems internationally. There is also newer and more complete data about what problems exist with cap and trade and how to address those problems. For instance, some now argue that cap and trade systems may lead to initial caps larger than optimal to provide the appropriate price signal for finding emission reductions.¹¹ This seems to come from both an over-estimation of baseline emissions and an under-estimation of ways to make cost effective reductions. Many cap and trade programs now have a price floor to avoid a complete collapse in prices. Such a floor can effectively function as a minimum carbon tax.

Offsets in cap and trade systems, which have been controversial from the beginning have faced more restrictions in newer systems. For instance, California's cap and trade offset allowances have specific and strict protocols for both set-up and enforcement. While this could make offsets more expensive than strictly necessary (and thus a less efficient CO2 reduction system), it has provided more trust in the offset systems. Alternatively, restrictions on and legal uncertainty of the Clean Development Mechanism certified emissions reduction (CER) credits utilized in the EU Emissions Trading System have effectively sunk the market for those instruments.

Domestically in the U.S., the most important changes since 2010 are the initiation of California's economy wide cap and trade system, as well as the abandonment of proposed regional systems in other states. The lack of functioning regional systems, such as the Midwestern Climate Initiative, the original multi-state multi-province Western Climate Initiative, and the proposed Florida cap and trade system have been attributed by many to the failure of a federal cap and trade system to come into existence. Many of the prior proposed regional and state systems were envisioned as steps to integration with a larger national market. With the failure to create a national market, many of these plans were abandoned. The Regional Greenhouse Gas Initiative continues to operate in the northeast, and some states may yet try to join or integrate with the California system. The functioning and price stability of the California

¹⁰ WORLD BANK GRP. ET AL., *supra* note 1.

¹¹ Michael Wara, *Instrument Choice, Carbon Emissions, and Information*, 4 MICH. J. ENVTL. & ADMIN. L. 261, 274 (2015); *see also* Lesley K. McAllister, *The Overallocation Problem in Cap-and-Trade: Moving Toward Stringency*, 43 COLUM. J. ENVTL. L. 395, 397 (2009).

system have gone a long way in establishing that a cap and trade system can work in an economy-wide setting, and that its presence does not necessarily create a drag on the economy generally.

Politically in the United States, climate change rhetoric continues to be polarized, but there also seems to be more of a bi-partisan understanding, at least in some quarters, that either a carbon tax or a cap and trade system can be set up to create similar pricing signals and can either be revenue neutral or designed to raise revenue. This more sophisticated understanding allows the comparison of carbon tax vs. cap and trade focus more on the areas of uncertainty (amount of reduction in tax, price in cap and trade) as well as potential differences in ease of administration. It is these potential differences that provided a discussion focus at the workshop.

Discussion Key Points and Conclusions:

Although there was not complete agreement as to which carbon pricing system would be the “best” from a political and administrative stand-point, there were some points of agreement or focus that came from the day long discussion:

- 1) The term “tax” is no longer as politically toxic as it used to be. The thinking from 2009-2010 that a carbon tax could never be implemented because of the name is probably not true. Or at least the notion that cap and trade would be more favorably viewed politically is not true.
- 2) The need for additional federal revenues or desire for more tax simplification and reform may at some point provide impetus for implementing some carbon pricing system.
- 3) Any federal carbon pricing system needs to be easily understandable and not too complex. Complexity creates concern about gaming systems. Some revenue neutral systems (such as tax and dividend) are very simple to understand, and complexity increases with the introduction of more and more policy choices (i.e. how should we spend government revenues or which taxes should be offset).
- 4) The implementation of a carbon pricing system is not likely to come from a direct policy push, i.e. stand-alone carbon pricing laws may be less likely than carbon pricing as an adjunct to other policy desires (such as tax reform).

- 5) Assuming that carbon pricing may not be a stand-alone law, it seems more likely and feasible that a “carbon tax” could be implemented as a part of tax reform and/or revenue enhancement. Moreover, the existing tax system (such as fuel taxes for highway infrastructure or wellhead taxes on energy) could be utilized to put higher taxes on carbon in some sectors of the economy without such policy even being designated as “pricing carbon.” However, increases in energy taxes may bring up issues of competitive advantage in product manufacturing and whether or not that should or could be addressed with border adjustment policies.
- 6) Path dependency may favor a cap and trade system, particularly internationally. While a tax system and a cap and trade system could be integrated, international carbon pricing continues to be dominated by cap and trade and attendant offset systems.
- 7) Border tax adjustments based on differing carbon pricing policies may be on sounder legal footing with WTO rules if the carbon pricing is done through a direct tax as opposed to a cap and trade system.
- 8) While there was not a consensus on this point of view, some workshop participants argued that, compared to a tax, cap and trade systems create a private incentive for enforcement which mitigates rent-seeking by creating a constituency that would oppose system changes because of an impact on investment.
- 9) Taxes can be designed to limit rent seeking. This is best done by establishing a tax schedule in which the tax rises by a set amount over time, rather than is re-set each year administratively and thereby subject to continued political influence.
- 10) There was disagreement about whether administrative agencies should be able to have much discretion in altering these prices.
- 11) The conservative case for carbon pricing is strongly dependent on federal and possibly state pre-emption of using other laws to try and limit CO₂ emissions. This could be a major sticking point in passing a stand-alone federal law.

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APPENDIX A - Relevant Readings:

Resolving the Inherent Uncertainty of Carbon Taxes: Introduction

Joseph E. Aldy, Marc Hafstead, Gilbert E. Metcalf, Brian C. Murray, William A. Pizer, Christina Reichert & Roberton C. Williams III

Increasing Emissions Certainty Under a Carbon Tax

Brian C. Murray, William A. Pizer, & Christina Reichert

Designing and Updating a U.S. Carbon Tax in an Uncertain World

Joseph E. Aldy

Adding Quantity Certainty to a Carbon Tax Through a Tax Adjustment Mechanism for Policy Pre-Commitment

Marc Hafstead, Gilbert E. Metcalf, & Roberton C. Williams III

Justin Gundlach, *To Negotiate a Carbon Tax: A Rough Map of Interactions, Trade-offs, and Risks*, 43 Columbia Journal of Environmental Law (March 2018)

<http://www.columbiaenvironmentallaw.org/to-negotiate-a-carbon-tax-a-rough-map-of-interactions-tradeoffs-and-risks/>

Gilbert Metcalf, Resources for the Future, *Implementing a Carbon Tax*

<http://www.rff.org/research/publications/implementing-carbon-tax>

David Driesen, *Emissions Trading versus Pollution Taxes: Playing “Nice” with Other Instruments*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2985669

Shi-Ling Hsu, *Carbon Policy in the Time of Trump: Carbon Tax Rising?*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2926476

Michael Wara, *Instrument Choice, Carbon Emissions, and Information*

<https://repository.law.umich.edu/mjeal/vol4/iss2/2/>

Brian Murray and Nicholas Rivers, The Nicholas Institute, *British Columbia's revenue-neutral carbon tax: A review of the latest "grand experiment" in environmental policy*

<https://nicholasinstitute.duke.edu/climate/publications/british-columbia%E2%80%99s-revenue-neutral-carbon-tax-review-latest-%E2%80%9Cgrand-experiment%E2%80%9D>

Jason Bordoff and John Larsen, Columbia University, *U.S. Carbon Tax Design: Options and Implications*

<http://energypolicy.columbia.edu/research/report/us-carbon-tax-design-options-and-implications>

Denny Ellerman, Claudio Marcantonini, Aleksandar Zaklan, *The E.U. ETS: Eight Years and Counting*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2383870

Victor B. Flatt, *Taking the Legislative Temperature for Climate Change*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1031191

Tracey Roberts, *Mitigating the Distributional Impacts of Climate Change Policy*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1473932

Climate Leadership Council, *The Conservative Case for Carbon Dividends*

<https://www.clcouncil.org/wp-content/uploads/2017/02/TheConservativeCaseforCarbonDividends.pdf>

Jean-Yves Benoit, Claude Cote, *Essay by the Quebec Government on its Cap-and-Trade System and the Western Climate Initiative Regional Carbon Market: Origins, Strengths, and Advantages*

33 UCLA J. Envtl. L. & Pol'y 42 (2015).