

Coalition of Finance Ministers for Climate Action
Workshop on Carbon Taxation
October 3-4, 2019, Stockholm, Sweden
Policy Summary Note

Contents

Day 1 – October 3, 2019

Keynotes: *Magdalena Andersson, Minister for Finance, Sweden; Per Krusell, Professor of Economics at Stockholm University.*

Carbon taxes and development – how carbon taxation can help countries achieve their Sustainable Development Goals: *Miria A. Pigato, Climate Lead, World Bank; Simon John Black, Economist, World Bank; James Daniel, Assistant Director, IMF.*

Carbon taxation is not rocket science – how to make administration easy: *Susanne Åkerfeldt (Moderator), Senior Adviser at the Ministry of Finance of Sweden; Anna Wallentin, Head of Market & Communication Department at the Swedish Gas Association; Rodrigo Pizarro, Professor in Economics at the University of Santiago of Chile.*

Revenue use – opportunities for strengthening public support and improving fiscal and climate policy: *Kurt van Dender (Moderator), Head of the Tax and Environment Unit at OECD's Centre for Tax Policy and Administration; Kathryn Harrison, Professor of Political Science at the University of British Columbia; Javier Sabogal Mogollón, consultant of the Ministry of Finance and Public Credit of Colombia.*

Risks of Carbon Leakage – ways to address competitiveness concerns: *Lena Sellgren (Moderator), Chief Economist and Head of Research at the Swedish Trade & Investment Council; Ian Parry, Principal Environmental Fiscal Policy Expert, IMF; Sharlin Hemraj, Director at the National Treasury, Ministry of Finance, South Africa.*

Day 2 – October 4, 2019

How to get public acceptance: *Christian de Perthuis (Moderator), Professor of Economics at the Paris-Dauphine University and Head of the Climate Economics Chair, Paris; Katheline Schubert, Professor of Economics at the University Paris I Panthéon-Sorbonne and Associate Chair at Paris School of Economics; Sverker C. Jagers, Professor in Political Science at Gothenburg University, Sweden.*

Package implementation: *Karl-Anders Stigzelius (Moderator), Senior Administrative Officer at the Ministry of Finance of Sweden; Evelio Gerardo Quesada Naranjo, Ministry of Finance, Costa Rica; Thomas Sterner, Professor in Economics at Gothenburg University*

Panel debate” Tricks of the trade” – experiences of carbon tax introductions

Ulrika Raab (Moderator), Senior Adviser with the Swedish Environment Protection Agency Kathryn Harrison, Sharlin Hemraj, Rodrigo Pizarro, Thomas Sterner, Susanne Åkerfeldt.

Enabling carbon taxation in the aviation sector: *Marc Gren (Moderator), Deputy Head of Unit at the Ministry of Finance, Sweden; Øystein Bieltvedt Skeie, Chief Specialist, Ministry*

of Finance, Norway; Irene Linthorst, Head of Consumer Tax Policy Summary Note: es, Ministry of Finance, the Netherlands.

Summary and Key Take-aways

Day 1 – October 3, 2019

Keynotes: Magdalena Andersson, Minister for Finance, Sweden; Per Krusell, Professor of Economics at Stockholm University.

It is essential that Finance Ministries engage on climate change issues, as carbon taxation is a powerful and cost-efficient way to proceed on mitigation and reduce emissions. Carbon taxation is critical, and Sweden has had good experiences showing that absolute decoupling of emissions and GDP growth is indeed possible. The Swedish Minister for Finance serves as one of the leaders of Helsinki Principle 3, working towards measures that result in effective carbon pricing. Key take-aways include:

- Climate change is the most pressing global challenge of our time.
- Carbon taxes are one of the most effective tools in the toolbox, and a necessary step towards decarbonizing our economies.
- The carbon tax can serve multiple purposes; it changes behavior while at the same time raising revenue.
- A carbon tax requires careful analysis to make sure the consequences are fair. All politics is local, and funds can be given back in different ways.
- Now is the time for Finance Ministries to act!

PPT:

(a) Krusell – Carbon taxation is necessary – and sufficient

Carbon taxes and development – how carbon taxation can help countries achieve their Sustainable Development Goals: Miria A. Pigato, Climate Lead, World Bank; Simon John Black, Economist, World Bank; James Daniel, Assistant Director, IMF.

Fiscal policies can lay the foundation for low-carbon and climate-resilient development. By implementing environmental tax reforms (ETRs), developing countries can reap a “triple dividend”: cutting pollution, raising economic activity and generating development Co-Benefits, such as cleaner water, safer roads and improvements in human health. A carbon tax can support national development objectives, in addition to climate objectives. Key take-aways include:

- ETRs can reduce emissions in a cost-efficient manner while advancing / protecting progress towards the SDGs.
- ETRs have multiple benefits beyond climate, such as reducing health costs associated with air pollution, making roads safer and less congested, raising revenues for achieving the SDGs, including SDG 13 on Climate Action.
- ETRs account for a tiny proportion of taxes, but are generally less distortionary, giving scope to shift tax burdens from other areas, like labor.

- Detailed modeling shows that substantially higher carbon prices are needed for countries to meet Paris mitigation pledges and would reduce death rates from air pollution (saving hundreds of thousands of lives). The models are calibrated at the country level.
- Complementary policies may be appropriate in some country contexts.

PPT:

(b) Pigato, Black, Daniel – Carbon Taxes and Development

Carbon taxation is not rocket science – how to make administration easy: *Susanne Åkerfeldt (Moderator), Senior Adviser at the Ministry of Finance of Sweden; Anna Wallentin, Head of Market & Communication Department at the Swedish Gas Association; Rodrigo Pizarro, Professor in Economics at the University of Santiago of Chile.*

A key issue in establishing a carbon tax (which sets a price on carbon) is to minimize the administrative burden. There are two basic administrative designs used in different jurisdictions: (1) Fuel Approach that has a carbon tax component added to an existing system of excise duty on fuels, while calculated based on average carbon content of fossil fuels; and (2) Direct Emissions Approach that involves measuring or estimating carbon emissions from certain types of installations, already necessary due to reporting obligations under the United Nation Climate Framework. Each has pros and cons. Key take-aways include:

- Initial decisions for a policymaker are: (1) what are you going to tax? (2) when is the tax to be paid and (3) who will be the tax payer? These design choices are important to ensure achievement of the policy goals for the carbon tax.
- Take advantage of existing administration. Coordinate with existing fuel taxation (using the Fuel Approach) or with existing environmental reporting (Direct Emissions Approach).
- Basing a carbon tax on the Fuel Approach means using average carbon emission factors for different fuels (for example available from the IPCC Emission Factor Database) to calculate tax rates, expressed in a legal text in weight or volume units. Emission factors are used as a value of the carbon content as there is a close relation between carbon content and CO₂ emissions. No measurement of emissions is necessary.
- To keep the administrative burden low, keep the number of tax payers down. In a Fuel Approach system fuel distributors and large consumers can be made legally responsible for paying the tax. The consumers of the fuels normally face the burden of the tax by higher prices; this is not regulated in the tax law.
- With a Direct Emissions Approach the point of regulation is based on measurement of direct emissions or estimation based on reporting of emissions. Both methods require a reporting structure for each facility liable for carbon taxation. The liability can be based on total power capacity of each facility.
- A system of monitoring, reporting and verification (MRV) is needed as a part of a major institutional framework of climate change policies. Reporting emissions already follows from international obligations under the Paris agreement and making use of

such reporting also for taxation purposes can strengthen the development of national MRV systems.

PPTs:

(c) Wallentin – Carbon Tax – the Swedish Way

(d) Pizarro – Lessons from the Carbon Tax in Chile

Revenue use – opportunities for strengthening public support and improving fiscal and climate policy: *Kurt van Dender (Moderator), Head of the Tax and Environment Unit at OECD’s Centre for Tax Policy and Administration; Kathryn Harrison, Professor of Political Science at the University of British Columbia; Javier Sabogal Mogollón, consultant of the Ministry of Finance and Public Credit of Colombia.*

The revenues from carbon taxes are likely to rise considerably in many countries, especially if future carbon tax rates will align with what the goals of the Paris Agreement require, before eventually declining as de-carbonization progresses. Revenue use policies can be developed and communicated in a way that contributes to public support for carbon taxation and improved fiscal policy. These need to convince stakeholders that carbon taxes are not revenue raisers in disguise but instead a pillar of successful climate policy. Progress will be helped by ensuring transparent revenue use (policy-makers could consider “tying their hands” in order to win public support). Choices will also need to be made between forms of revenue use, such as cutting other taxes, increasing green spending, introducing some form of carbon dividends, or increasing total tax takes. Revenue use choices depend strongly on the political and social context. Key take-aways include:

- Revenue neutrality (tax shift) can be an effective mechanism to gain buy-in from businesses.
- Tax cuts not very effective with voters, especially if they are low visibility (most will underestimate how much they actually received – better to send a check with a tax refund).
- Political economy issues are critical.
- Surveys can be a good tool to inform policy.
- Ear-marking of revenues is generally not encouraged, but in some cases (devoting to environmental issues in Colombia) it can help sell the tax.
- Flexibility in choosing how to comply with the regulation (pay tax or reduce emissions) helps.
- Credible systems for validation and verification are essential.
- Recognize that promoting better behaviors is a key function of the Ministry of Finance.

PPTs:

(e) Harrison – Carbon Taxation in Canada – Impact of Revenue Recycling

(f) Mogollón – Carbon Tax in Colombia

Risks of Carbon Leakage – ways to address competitiveness concerns: *Lena Sellgren (Moderator), Chief Economist and Head of Research at the Swedish Trade & Investment Council; Ian Parry, Principal Environmental Fiscal Policy Expert, International Monetary Fund (IMF); Sharlin Hemraj, Director at the National Treasury, Ministry of Finance, South Africa.*

I) Competitiveness concerns and instrument for offsetting burdens on industry and workers and community assistance programs

- The global free-rider problem is overstated, as there are domestic environmental co-benefits that warrant CO₂ pricing.
- Estimated carbon leakage rates are 5-20%, mostly from changes in international fuel prices rather than firm migration.
- An *international carbon price floor* needs to be established as a complement to the Paris Agreement, in order to address competitiveness issues. It can be effective with limited number of countries, equitable (if developing countries have floor lower), and flexible (could be met by tax cuts, rebates, emissions trading, regulations etc to offset burdens on trade-exposed firms).
- Estimating an effective carbon price will be an important step.
- If higher energy prices are difficult, indirect pricing may be preferred. “Feebates” are promising, with sliding scale of fees/rebates on activities/products with above/below average emission rates.
- Estimated costs of mitigation vary by instrument use, with carbon tax and dividend the highest, feebate combination in the middle, and carbon tax with 75 percent used to cut income taxes the cheapest.
- Revenues can also be used to provide benefits and training to vulnerable workers (like coal miners) who will be displaced in the transition to low carbon (less than 2 percent of \$50 carbon revenues adequate for this purpose). Support to struggling communities can also be considered.

II) Sharing experiences (South Africa’s case)

- Modelling for carbon tax design: 1) Introduction of tax at a relatively low rate, 2) Marginal tax rate to be adjusted over time, 3) To help sectors transition, especially those likely to experience declines in exports, trade exposure allowances can be provided, adjusted based on trade intensity at a sector level (South Africa caps the maximum allowance at 10 percent).
- Extensive consultations are needed to underpin policy reform.

PPTs:

(g) Parry – Addressing Competitiveness Concerns from Carbon Pricing

(h) Hemraj – 2019 Carbon Tax Act – South Africa

Day 2 – October 4, 2019

How to get public acceptance: *Christian de Perthuis (Moderator), Professor of Economics at the Paris-Dauphine University and Head of the Climate Economics Chair, Paris; Katheline Schubert, Professor of Economics at the University Paris 1 Panthéon-Sorbonne and Associate Chair at Paris School of Economics; Sverker C. Jagers, Professor in Political Science at Gothenburg University, Sweden.*

Sweden and, more recently, France implemented carbon taxes covering carbon emissions from households, transport and industry not covered by the EU Emissions Trading Scheme (EU ETS). Facing an unexpected opposition by the "gilets jaunes", the French Government interrupted the increase of the carbon tax at a rate which is approximately half of the Swedish rate but remains well above the current carbon price on emissions within the EU ETS. How governments communicate on carbon taxes, and the use of revenues of the carbon taxes are important determinants of public acceptance. One consideration is the use of the EU ETS to cover carbon emissions by industry and energy sectors, and carbon taxes to cover the other sectors. Key take-aways include:

- Design CO₂ taxes that are sensitive to public opinion, focusing on beliefs and fairness considerations (implement surveys before policy).
- Consider policy combinations/mixes, depending on the context and political culture.
- In a context of governance challenges, it is important to include a transparent and neutral audit-system. Trust and acceptance can be built thanks to independent assessment (Example of the congestion charge in Stockholm).
- Carbon taxes can be regressive, depending on income levels, location, and equipment (type of car, or heating for example). Considering these distributional impacts is essential to build a sense of fairness, trust, and common purpose.
- Exemptions (air transport, shipping, ...) or rebates can undermine trust and acceptance, especially when large emitters pay less than households.
- Use revenues for correcting regressive impacts and for investing in R&D and green investment.
- Engage in extensive consultations and find ways of supporting people hurt by the transition to lower carbon.

PPTs:

(i) *Schubert – Carbon Taxation – The French Experience 2014-2019*

(j) *Jagers – What Affects the Publics Acceptance of CO₂ Taxes*

Package implementation: *Karl-Anders Stigzelius (Moderator), Senior Administrative Officer at the Ministry of Finance of Sweden; Evelio Quesada, Ministry of Finance, Costa Rica; Thomas Sterner, Professor in Economics at Gothenburg University*

A carbon tax can be a cost-efficient tool to reduce emissions. However, for a carbon tax to reach its full potential, it is important for policymakers to consider the context in which it is introduced. The carbon tax can be seen as an engine, which stimulates green action, but an engine may need lubricants to run smoothly. A broader package means ensuring that households and firms have feasible options available to lower carbon emissions. Additional measures may be needed to help improve the effectiveness of a carbon tax, and the interaction between carbon taxes and other taxes should be acknowledged. Key take-aways include:

- How the implementation of a carbon tax is packaged matters; it is important to introduce the tax so that it fits into the grand scheme of things!

- Tax design, revenue use, public acceptance and competitiveness issues are all components of a successful packaging. Many key messages from the other sessions are therefore crucial also when considering how to package the implementation of the tax.
- The details of a successful introduction of a carbon tax depends on the context and each jurisdiction will have its own specific circumstances that can be used for a successful packaging.
- Carbon taxes can be enabled as a part of packages and initiatives that have public support (such as the Payments for Ecosystems Services program in Costa Rica).
- Carbon taxes can be introduced simultaneously with auxiliary measures to support households and firms to reduce emissions (as was the case in Sweden).
- Implementing carbon taxes as part of a wider tax reform (such as in, for example, Sweden and Chile) can facilitate their introduction.
- Analyzing and communicating the effects of carbon taxes *ex ante* can also be part of the packaging; e.g. to show that carbon taxes are not necessarily regressive.

PPTs:

(k) *Quesada – The Fossil Fuel Tax in Costa Rica*

(l) *Sterner – Package implementation*

Panel debate” Tricks of the trade” – experiences of carbon tax introductions

Ulrika Raab (Moderator), Senior Adviser with the Swedish Environment Protection Agency

Kathryn Harrison, Rodrigo Pizarro, Sharlin Hemraj, Thomas Sterner, Susanne Åkerfeldt.

Experience with different jurisdictions introducing carbon taxation is growing. Recommendations on good practices are emerging from the varying models and approaches. Some key take-aways include:

- Carbon taxes are possible and work.
- It is important to adjust to different country contexts, especially whether low or high income.
- Ear-marking is appropriate in some contexts, especially to boost visibility.
- Most countries already have fuel taxes, and carbon taxes can be built in.
- Policy makers are advised to keep it simple.
- Ensuring alternatives is important for public acceptance. To gain acceptance, the tax must be considered as fair. Careful attention to distributional effects is therefore needed.
- Exemptions for carbon intensive industries can ease the transition into a carbon tax but any exemption should include end-date for the exemption.
- Ensure that the tax increases with the consumer price inflation, if not faster.
- Carbon tax can be introduced or raised as part of a wider tax reforms or tax shift.
- Avoid perception of carbon tax as a ‘tax-grab.’ Carbon taxes are not about revenue, but rather internalizing externalities, based on the polluter pays principle.
- Base carbon taxes on extensive policy papers and consultations aimed at understanding transition issues.
- Carbon prices need to be significant to have an impact on decision making, and not lead simply to paying the tax and/or buying carbon offsets.

- Effective communication is critical, to avoid carbon taxes being labeled unfair, bad for jobs, or bad for your region.
- If the revenues will be used to pay dividends to citizens, ensure visibility, for example by sending checks.
- Focus on strengthening institutional infrastructure, underpinning the whole carbon cycle, from emissions to sinks.
- Develop market instruments to ensure cost effectiveness.
- Consider land use contributions to CO₂ emissions.
- Policy makers may consider keeping offsets limited at the country level, in order also to support NDCs.
- ETS may be too complicated and demanding to implement effectively at present.

Enabling carbon taxation in the aviation sector: *Marc Gren (Moderator), Deputy Head of Unit at the Ministry of Finance of Sweden; Øystein Bieltvedt Skeie, Chief Specialist, Ministry of Finance, Norway; Irene Linthorst, Head of Consumer Taxes, Ministry of Finance, the Netherlands*

On June 20 and 21, 2019, the Netherlands held a conference in the Hague on Carbon Pricing and Aviation Taxes, gathering politicians, civil servants and scientists from EU Member States as well as other countries. It was concluded that enabling the taxation of aviation fuel rests on sound economics. There was considerable support for starting to explore the possibility to tax aviation fuel internationally as aviation's impact on the climate needs to be reduced. There is substantial on-going international work to enable aviation fuel taxation, including legal aspects such as the standing of the Chicago Convention and the contents of a bilateral agreement or multilateral convention on aviation fuel taxation. Some key take-aways from this session include:

- The special tax status of aviation is outdated.
- It is possible to tax aviation fuel already today.
- Taxation of aviation fuel is deemed consistent with the Chicago Convention. Other possible legal obstacles are all solvable.
- There are examples that shows that aviation fuel can be taxed, for example in Norway.
- Some countries have introduced or are planning to introduce ticket taxes (7 countries in Europe impose them but also countries outside Europe), which also is a possibility. Cargo can also be covered.
- Taxes should come on top of EU ETS.
- Those countries that hesitate or are not considering aviation tax call for more comprehensive approach

PPTs

(m) Gren – Bilateral Agreement/Multilateral Convention on Enabling Jet Fuel Taxation

(n) Skeie – CO₂-tax in aviation – Norwegian Experiences

(o) Linthorst – Dutch Perspective on Taxing Aviation