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FISCAL POLICY AND A CARBON PRICE

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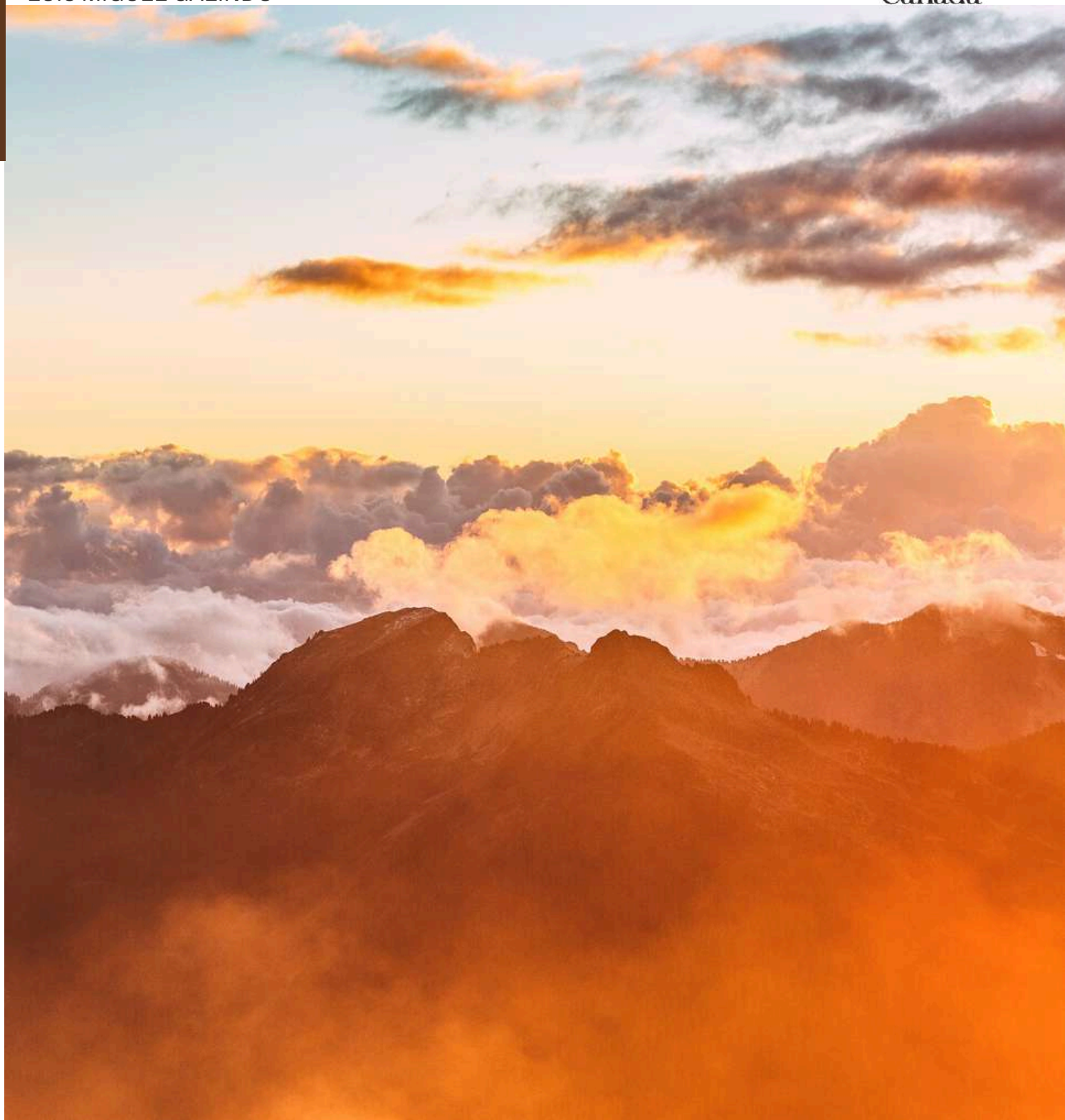

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This document aims to present a synthesis of some of the main debates about carbon prices for policy purposes. The Paris Climate Change Agreement has the target of a temperature rise of 1.5o C and 2o C during this century, which requires the construction of a carbon-neutral economy between 2050 and 2070.

A carbon price in all deep decarbonization scenarios is consistent with the Paris Agreement. However, intense debates remain about the final consequences of a carbon price on Greenhouse gas emissions and the collateral effects on economic dynamism and income distribution. The literature revision indicates that:

1. The carbon price for a Just Climate transition to a carbon net zero economy could be high.
2. The carbon price would contribute to reducing greenhouse gas emissions but is not necessarily consistent with a carbon net-zero economy.
3. The carbon price can potentially negatively affect economic dynamism and income distribution. However, these effects can be compensated with fiscal recycling policies.

Henceforth, it is possible to incorporate a carbon price under a Just Climate Transition under a more comprehensive approach considering recycling policies.

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Abstract

This document aims to present a synthesis of some of the main debates about carbon prices for policy purposes. The Paris Climate Change Agreement has the target of a temperature rise of 1.5o C and 2o C during this century, which requires the construction of a carbon-neutral economy between 2050 and 2070. A carbon price in all deep decarbonization scenarios is consistent with the Paris Agreement. However, intense debates remain about the final consequences of a carbon price on Greenhouse gas emissions and the collateral effects on economic dynamism and income distribution. The literature revision indicates that: 1. The carbon price for a Just Climate transition to a carbon net zero economy could be high. 2. The carbon price would contribute to reducing greenhouse gas emissions but is not necessarily consistent with a carbon net-zero economy. 3. The carbon price can potentially negatively affect economic dynamism and income distribution. However, these effects can be compensated with fiscal recycling policies. Henceforth, it is possible to incorporate a carbon price under a Just Climate Transition under a more comprehensive approach considering recycling policies.

Introduction

The Paris Climate Change Agreement targets a temperature rise of 1.5° C and 2° C for this century, requiring the construction of a carbon-neutral economy between 2050 and 2070 (United Nations, 2015). Most of the scenarios of this deep decarbonization contain a carbon price. However, the direct and indirect consequences of the carbon price, either as a carbon tax or under a Trading System, are still under intense debate as in, for example, the implications of a carbon price to reduce greenhouse gas emissions or the indirect impact of a carbon price on income distribution. This is crucial information for the instrumentation of a Just Climate Transition.

This document aims to present a synthesis of the main debates about a carbon price for policy purposes.

General Framework

The Paris Climate Change Agreement has the target of a temperature rise of 1.5^{o} C and 2^{o} C during this century (United Nations, 2015) and requires the construction of a carbon-neutral economy between 2050 and 2070. Most of the deep decarbonization scenarios include a carbon price. However, intense debates remain about the main consequences of a carbon price. Among the most important are:

- The carbon price reduces greenhouse gas emissions but not necessarily in the magnitude and within the proper time span to achieve a carbon-neutral economy. That is, the evidence indicates that the income and price elasticities of the demand for energy, such as the demand for gasoline, are different in developed and developing countries. In developing countries, there are higher income elasticities of the demand for energy and gasoline than in developed countries and, in absolute terms, smaller price elasticities in developing countries than in developed countries. The income and price elasticities indicate that a similar economic growth would lead to a higher demand for energy and gasoline in developing countries than in developed countries, and a similar carbon tax will lead to a larger reduction in the demand for energy and gasoline in developed countries than in developing countries. Therefore, it is important to consider that similar policies have heterogeneous results in the world economy.

- The carbon price negatively affects income distribution but with important differences between countries, types of tax, and energy. It is, for example, expected that a carbon tax has marginal negative effects on income

distribution and that these effects can be controlled using fiscal recycling policies to obtain a weak second dividend (Symons et al., 2002). Henceforth, after fiscal recycling, a carbon price has positive effects on income distribution. Evidence indicates, also, that a gasoline tax has progressive effects on income distribution (Sterner (ed) 2012). Considering these impacts on income distribution is a relevant component for a Just Climate Transition.

This evidence shows that it is possible to use a carbon price to support the deep decarbonization process. However, it is also necessary to consider the particular conditions in Latin America reflected in the specific income and price elasticities of the demand for energy and the potential effects on income distribution.

Conclusions

A carbon price is a fundamental component of deep decarbonization scenarios. It presents a fundamental instrument to promote the reduction of greenhouse gas emissions and new low-carbon technologies. However, there are limits and potential negative effects, such as the negative consequences on income distribution and the heterogenous effects on the demand for energy that are illustrated in the income and price elasticities of the demand for energy.

Therefore, the imposition of a carbon price should consider recycling fiscal policies and the presence of a high-income and low-price elasticity in absolute terms to simultaneously incorporate other policies, such as regulations and the construction of new infrastructure for a Just Climate Transition.

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