Internal Carbon Pricing: A growing corporate practice

12/11/2016

Benoît LEGUET

COP22 Marrakech
Green Zone
Pavillon Comité21 / Club France

Summary | Internal Carbon Pricing

Businesses are increasingly adopting an internal carbon price due to…

- The increasing economic and financial risks posed by climate change
- The rapid emergence of a favorable political framework for carbon pricing
- The need to anticipate the future implementation of policies that policies that put a price on carbon and steer the allocation of capital to low-carbon investments

Options to implement a corporate carbon price depends on companies'objectives

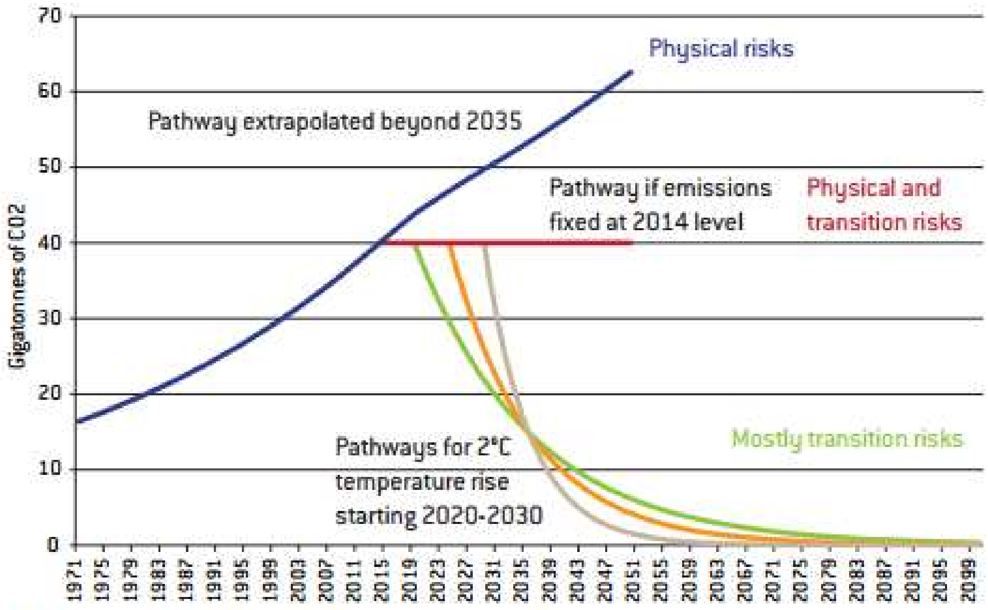
- There are several ways an internal carbon price can be implemented and the choice and design of pricing instrument: taxes, shadow prices, implicit carbon prices

The growing materialisation of economic and financial risks related to climate change

Climate change + business = a multitude of economic risks

- **Physical risk** - increase in the intensity of extreme climate events (floods, drought etc.) which could negatively impact company assets, disrupt supply chains and increase resource scarcity.
- **Regulatory risk** - posed by national and subnational carbon pricing policies and other environmental regulations
- **Risk of depreciation of tangible assets** - where decarbonisation policies decrease the value of certain assets ("stranded assets")
- **Legal liability risk** – requests for compensatio from companies that are believed to be knowingly negligent in preventing the economic impact of climate risks

Figure 1: Possible carbon emission trajectories



Source: UK Prudential Regulation Authority (2015).

I4CE INSTITUTE FOR CLIMATE ECONOMICS
Une initiative de la Caisse des Dépôts et de l'Agence Française de Développement

A new political framework has emerged to accelerate carbon pricing and promote the transition towards a carbon neutral economy

UNFCCC

- **Bottom-up voluntary iNDC process**
- **Through cooperative approaches in Article 6** of the Paris Agreement (ITMOs, SDM & framework for non-market approaches)

Governments

- **G7** global carbon pricing platform
- **Ministerial Declaration on Carbon Pricing**
- **Carbon pricing panel**

Public and Private

- **Lima Paris Action Agenda** (LPAA) – Carbon pricing Champions
- **Carbon Pricing Leadership Coalition** (WB/IMF)
- **Carbon Disclosure Project**

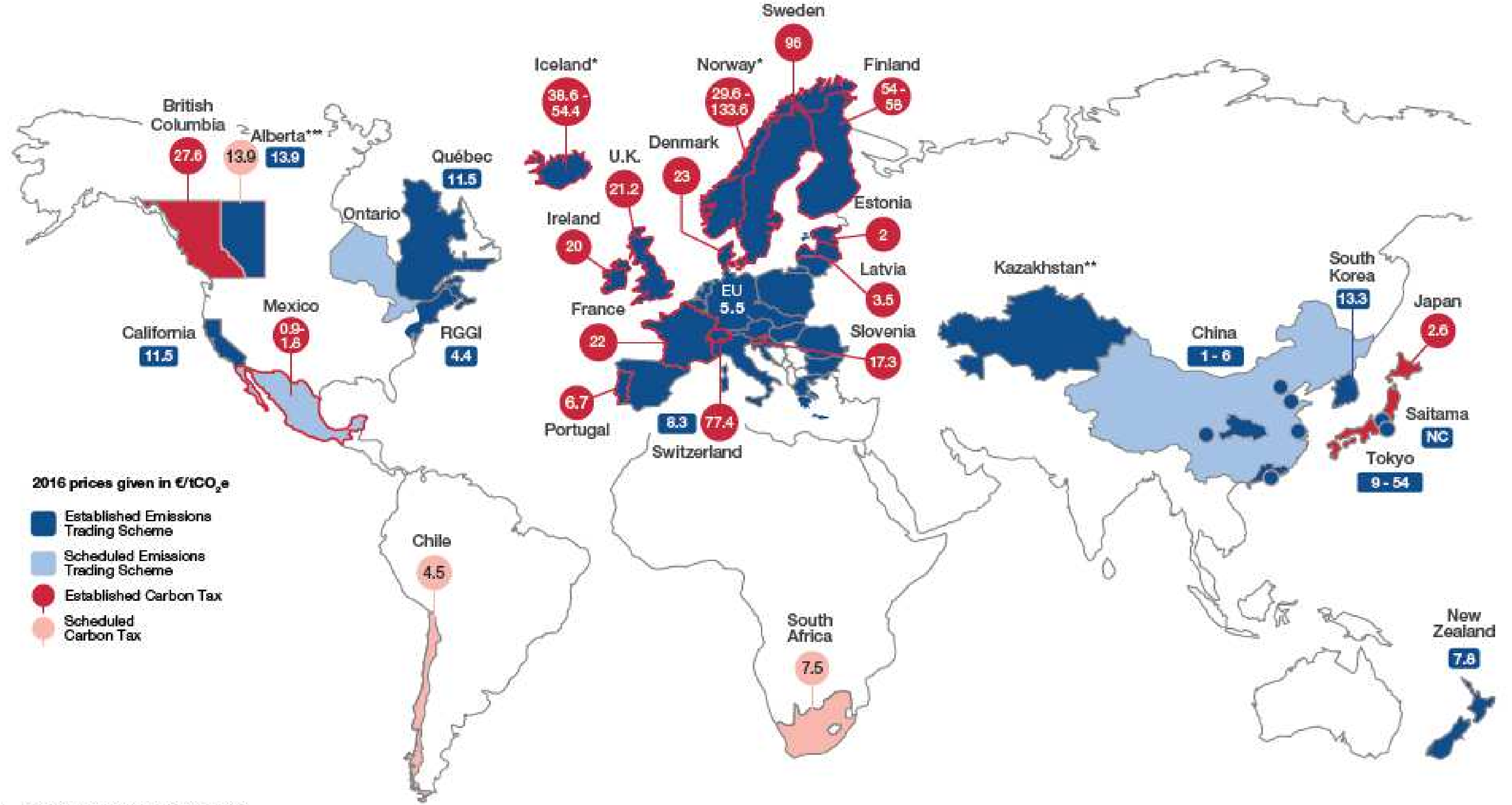
CARBON PRICING LEADERSHIP COALITION

CDP DRIVING SUSTAINABLE ECONOMIES

LPAA

I4CE INSTITUTE FOR CLIMATE ECONOMICS
Une initiative de la Caisse des Dépôts et de l'Agence Française de Développement

Map of explicit carbon prices around the world



* Rate varies by sector/energy product
** ETS suspended until 2018
*** The 2015 Specified Gas Emitters Regulation (SGER) price is the fee paid into the Climate Change and Emissions Management Fund, set at €10.9/tCO_2e. The Carbon Competitiveness Regulation (CCR) will replace the SGER in 2018, at which point, an economy-wide carbon price of €21.8/tCO_2e will be set

Note: All prices are nominal values. ETS prices have been calculated as an average of prices between 1 January and 30 June 2016. Prices were calculated using exchange rates provided by XE.com on 8 July 2016.

Source: I4CE - Institute for Climate Economics, September 2016

Anticipating the emergence of numerous political instruments that put a price on carbon and increase inventives to decarbonise

Immediate (2016)

Medium term 2017-2020 (1-4 years)

Longer term 2020-2030 (5-15 years)

1. **42 national and over 24 subnational jurisdictions** (13% of global GHG emission) are putting a price on carbon

2. **At COP21 in Paris (2015)**
Governments agreed on a global agreement, to limit average global temperature rise by 2 degrees (base 1990)

3. **Policy makers in developing and developed countries** continue to voice their support for the critical role of carbon pricing in achieving a global decarbonisation objectives

4. **Private sector companies**
are increasingly engaging in the adoption of carbon as a standard cost of doing business. + 1,200 companies are expected to adopt an internal carbon pricing tool in the next 2 years.

5. **(Numerous) Nationally Determined Contributions under the Paris Agreement** explicitly indicate that carbon pricing will be a key element of their GHG mitigation strategy

6. **The EU Commission**
has confirmed that its ETS will be a crucial instrument to achieve its 2030 emission reduction target

The internal carbon price: a new management tool for business

An **internal carbon price** is a value which businesses voluntarily adopt (and is often confidential) to internalise the economic and environmental costs of their GHG emissions.

It can be applied as:

- A tool to support a company's decarbonisation strategy and to anticipate and sieze low-carbon investment opportunities
- A risk management tool used to increase the company's resilience to the consequences of climate change

Methods depending on the needs of the organisation

Carbon Tax

(explicit carbon price - calculated ex-ante)

Method: tax applied on (Scope 1, 2 or 3) GHG emissions associated with a company's operational activities

Objective: short-term impact

- Reduce corporate emissions to meet internal/external targets
- Generate internal revenues to finance further emissions reductions
- Offset corporate GHG emissions
- Incite further low-carbon engagement from employees

Shadow Price

(explicit carbon price - calculated ex-ante)

Method: integrate carbon costs in all investment decisions without monetizing GHG emissions

Objectives: medium and long-term impact

- Develop climate resilient investment practices
- Analyze the sensitivity of investments to different carbon price scenarios
- Guide financial flows towards low-carbon investments
- Increase awareness and consideration of the internal carbon price signal among collaborators

Difficulties: selecting the most appropriate scope for the carbon price relative to corporate activities

Implicit carbon price

(implicit carbon price - calculated ex-post)

Method: ex-post evaluation of GHG emission reductions costs within a defined scope, without monetizing GHG emissions

Objectives: **Provides information**

- Estimate the cost of GHG emissions reductions
- To inform an ex-post assessment of an investment decision (i.e. a new technology, policy etc.)
- Raise awareness within the organization of the cost of GHG emissions reductions

Conclusion | Internal carbon pricing: The pilot phase

- This policy provides a new avenue for business to manage climate-risk and bring corporate practices in alignment with a 2°C scenario.
  - Materializing economic and financial risks related to climate change
  - Stimulating and “de-risking” the low-carbon business case
- Considerations for companies looking to adopt an internal price on carbon:
  - How can the effectiveness of this policy be assessed?
  - What could be the impacts on the companies business model (technologies, products, activities portofolio, etc..)?
  - What are impacts on corporate financial communications ? Do rating agencies consider these new corporate carbon pricing approaches ?
- To advance voluntary carbon pricing among businesses over the next 4-5 years, over-arching climate and energy policies from government will be necessary to continue the impetus to transition to low-carbon practices.

Contact: Benoit.leguet@i4ce.org

The last **I4CE publications** on carbon pricing policies:

June 2016 : Recycling carbon revenues: transforming costs into opportunities
Download

April 2016 :The Paris Agreement: a new international framework to facilitate the uptake of carbon pricing
Download

September 2016:
Internal Carbon Pricing: a growing corporate practice (only in French)

December 2015 :
Exploring the EU ETS beyond 2020: A first assessment of the EU Commission's proposa for Phase IV of the EU ETS (2021-2030)
Download the report

I4CE – Institute for Climate Economics 47 Rue de la Victoire, 75009 PARIS
www.i4ce.org | contact@i4ce.org | +33 1 58 50 87 10

There are several ways to implement an internal price on carbon that is aligned with company objects

Company Objective	Shadow Price	Carbon Tax
Reduce GHG emissions	• Products and services • High emission activities	• Other operations
Manage risk	• Investments	• Operations and activities
Making investment decisions	• Acquisitions • Shifting away from high emitting practices	• Renovation or replacement of equipment
Raise awareness and responsibility among employees	• Project managers, strategic decision-makers	• Middle management teams, employees