The Process of Developing an Internal Cost of Carbon

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Introduction

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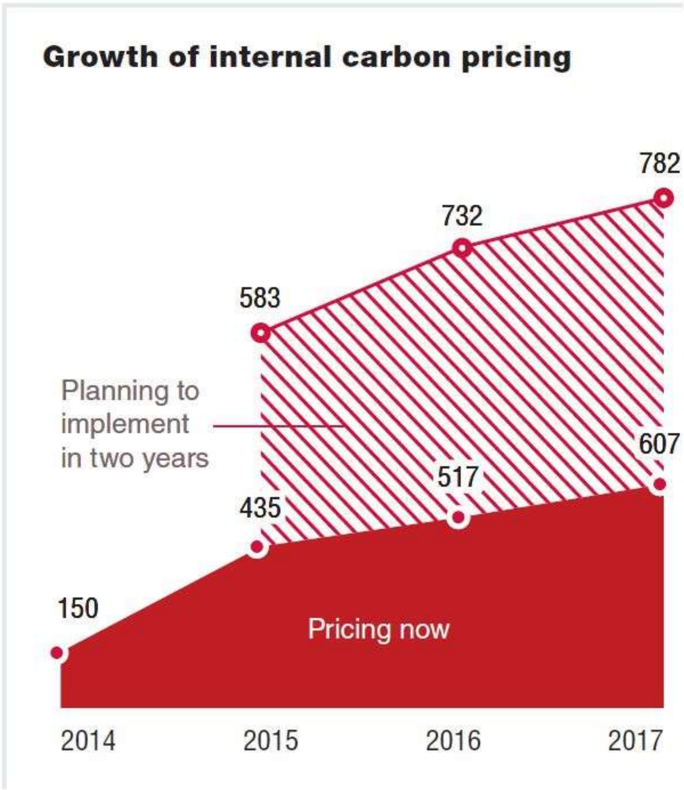
What is an internal carbon price?

Internal carbon pricing is an important mechanism to help companies manage risk and identify opportunities in the transition to a low-carbon economy.

It entails fixing a value to the business of GHG emissions and using this as a factor in business decision making.

Since 2014, the number of companies reporting to CDP that they are using carbon pricing has grown by 300%, from 150 to over 600.



Source: *Putting a price on carbon,* CDP, 2017

Why do companies use internal carbon pricing?

There are three main drivers for companies to adopt carbon pricing:

1. **Manage Risk:** Internalizing the cost of carbon enables companies to assess and manage exposure to carbon regulation such as emissions trading schemes and carbon taxes.
2. **Identify Opportunity:** Carbon pricing is used as a means to identify opportunities in the transition to a low-carbon economy, such as the development of low-carbon products and services.
3. **Drive Emissions Reductions:** Internal carbon pricing is used to incentivize carbon reduction activity such as energy efficiency improvements and investment in low-carbon capital equipment

The Process: Approaches

There are two main approaches to internal carbon pricing:

1. **Shadow Pricing:** A shadow carbon price assigns a hypothetical cost to GHG emissions in order to help the business understand how they affect the business case for projects. This is the most common approach, and does not result in actual financial impact. Rather, it illuminates the hidden costs and opportunities across the value chain in order to support strategic decision making.
2. **Internal Carbon Fee:** A carbon fee takes this approach a stage further by charging business units for the emissions they are responsible for. Some programs reinvest the fee revenue into carbon reduction projects.

The Process: Design and implement

Engage the business
- Engage key stakeholders across the business
- Set objectives
- Gain buy-in for business case

Design approach
- Collect GHG inventory data
- Develop change management strategy
- Determine the carbon price

Implement
- Pilot in select business units
- Refine approach
- Roll out with support and tools

Evaluate
- Monitor the effectiveness of the approach
- Refine and realign based on feedback

The Process: Setting the price

There are several methodologies used to set the internal carbon price:

Method	Factors	Resources
External Resources: Use prices from external schemes such as the EU ETS or any current or projected carbon tax, or the social cost of carbon	Effective for entities with material regulatory or policy risk. Minimal resources are required to determine the price, once the appropriate information source is selected. Not tailored to company.	EU ETS, government policy, IEA scenarios
Peer benchmarking: Benchmark to carbon prices used by sector peers	Effective for companies responding to competitive pressure. Minimal resources are required to determine the price, once the appropriate information source is selected. Not tailored to company.	CDP annual carbon pricing report
Internal engagement: Consult internally to determine price to drive behavior change	Effective for companies seeking to impact strategic decision making. More time and resource required to determine appropriate level. Tailored to company but may not address external risks.	What-if analysis of past business decisions with different carbon price scenarios.
Technical analysis: Determine carbon reduction target and cost of measures needed to meet it	Effective for companies seeking to meet specific emissions reduction goals. Resource intensive process requiring extensive, detailed analysis. Highly tailored to company and accounts for external factors	Marginal abatement cost curves

Types of carbon pricing

The four main types of carbon pricing are:

1. **Uniform Pricing:** A single price that is applied across the business to all geographies, business units and type of decision.

2. **Differentiated Pricing:** Variation in the price used depending on the geography, business unit or type of decision.

3. **Static Pricing:** The carbon price stays the same over time.

4. **Evolutionary Pricing:** The carbon process changes over time in response to factors such as policy changes and market conditions

How do companies use carbon pricing?

Internal carbon process are applied with varying degrees of breadth and depth. The areas where carbon prices are typically applied include:

- Capital expenditure
- Operational decisions
- Procurement
- Product and R&D decisions

The impact of carbon pricing on organizations varies widely:

Strong Influence

- Internal carbon fee reinvested
- Screening criteria in strategic decision making
- Financial indicator in ROI calculations
- Qualitative factor in decision making
- Track carbon price without impact on decision

Weak Influence

Thank you

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