

A primer on carbon pricing, true pricing, and product pricing

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In this article, the author explores the concepts of carbon pricing, true pricing, and their relationship with product pricing highlighting its benefits, challenges, and potential solutions. Stephan M. Liozu (sliozu@gmail.com) is Founder of Value Innoruption Advisors, a consulting boutique specializing in industrial pricing, XaaS pricing, and value-based pricing. He is also the Co-Founder of Pricing for the Planet, which specializes in pricing for sustainability. Stephan has 30 years of experience in the industrial sector with companies like Owens Corning, Saint-Gobain, Freudenberg, and Thales. He has authored and edited 14 books on value and pricing management. Stephan sits on the Board of Advisors of Professional Pricing Society. He is a Senior Advisor with BCG and Black Winch.

Carbon pricing has emerged as a crucial tool for reducing greenhouse gas emissions and promoting sustainability in various industries.

While still in its infancy, the carbon pricing ecosystems are being developed through the emergence of carbon trading platforms in specific industries and specific geographies. Of course, we are far away from high levels of adoption and rational understanding about how carbon pricing mechanisms are designed and operated.

However, I believe that one of the most effective ways to implement carbon pricing is by connecting it to true pricing and product pricing in B2C and B2B markets. This approach not only incentivizes companies to reduce their carbon footprint, but also encourages consumers to make more sustainable choices. In this paper, we will explore the concepts of carbon pricing, true pricing, and their relationship with product pricing highlighting

its benefits, challenges, and potential solutions.

Some Key Definitions

To set the stage, let us start with some key definitions that are important for the rest of the article.

- Carbon Pricing:** Carbon pricing is a strategy that assigns a monetary value to carbon emissions, either through taxes, cap-and-trade systems, or other mechanisms. It aims to incentivize businesses to reduce their carbon footprint by incorporating the environmental cost of carbon emissions into their operations.
- True Costing:** True costing involves a comprehensive evaluation of all direct and indirect costs associated with producing a product or delivering a service. This includes environmental and social costs, not just financial expenses, providing a holistic view of the actual cost of an offering.
- True Pricing:** True pricing goes beyond traditional pricing models by
- True Value Pricing:** True Value Pricing is a strategic pricing approach that goes beyond traditional methods by focusing on the actual value delivered to customers. It considers both the tangible and intangible benefits of a product or service, including environmental and social impacts. True Value Pricing aims to align pricing with the perceived value by customers, considering the holistic impact of the offering on various stakeholders.
- Product Pricing:** Product pricing is the process of determining the monetary value or cost assigned to a product or service offered to customers. It involves considering various factors such as production costs, market demand, competition, and perceived value to set an optimal price for the product or service.

A Refresher on Carbon Pricing

Carbon pricing is a policy instrument that puts a price on carbon emissions to incentivize reducing greenhouse gas emissions and transitioning to a low-carbon economy. Carbon pricing, in the form of direct carbon taxes or indirect carbon emissions trading systems, has been implemented in 46 national jurisdictions.

Here's is a simple description about how it works in theory:

- Carbon emissions are assigned a monetary value, typically in the form of a tax or tradable permit.
- Companies or governments must pay for each ton of carbon they emit, creating a direct cost for pollution.
- The revenue generated can be used to invest in renewable energy, energy efficiency, or other climate-related projects.
- As carbon-intensive activities become more expensive, businesses and consumers are encouraged to adopt cleaner technologies and practices.
- Carbon pricing can be implemented at the national, regional, or industry level, with various designs and price levels.
- Cap-and-trade systems, where permits are limited and traded, can lead to a market-driven carbon price.
- Carbon taxes, where a fixed price is levied per ton of emissions, provide price certainty but may lack flexibility.
- Effective carbon pricing depends on factors like the price level, coverage, and revenue allocation.

By attaching a cost to carbon emissions, carbon pricing aims to level the playing field for low-carbon alternatives and drive innovation in the en-

ergy sector. It's considered a crucial policy tool for meeting global climate targets and limiting temperature increases.

Here are some difficulties in setting and enforcing carbon pricing:

- Balancing climate ambitions and economic concerns: Policymakers must balance the need to reduce emissions with the potential economic impact on businesses and consumers, making it difficult to set an appropriate price.
- Political challenges: Carbon pricing faces opposition from carbon-intensive industries and politically influential groups, making it hard to set and maintain a robust carbon price. Unfortunately, the resistance is growing year after year.

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- Limited public support: Lack of public understanding and support for carbon pricing can make it challenging to implement and maintain a carbon price that is high enough to drive emissions reductions.
- Economic and social concerns: Policymakers must consider the potential impact on low-income households, vulnerable industries, and regional economies when setting carbon prices - especially if the true costs of carbon emissions are passed on to the consumers in times of hyperinflation.
- Complexity in measuring carbon equivalence: Different greenhouse gases have different warming po-

tentials, making it challenging to set equivalent carbon prices for non-CO2 gases.

- Difficulty in setting carbon price levels: Determining the appropriate level of carbon pricing to achieve emissions reductions while minimizing economic disruption is a complex task.
- Difficulty in aligning carbon prices across sectors: Carbon prices may vary across sectors, making it challenging to ensure consistency and fairness in pricing.
- Difficulty in aligning carbon prices internationally: International coordination on carbon pricing is essential to prevent carbon leakage and maintain a level playing field.

- Limited enforceability: Carbon pricing might be challenging to implement and enforce, especially in countries with limited administrative capacity and resources.
- Collective action problem: No nation or individual can solve climate change alone, which tempts each actor to free ride on others' efforts.

Policymakers must carefully consider these challenges when setting carbon prices to ensure that they are effective, efficient, and equitable in reducing emissions and achieving climate goals. Recently, however, larger private organizations have announced significant carbon investments signaling greater adoption and preparation



by some of the pioneers in the sustainability space.

Benefits of Connecting Carbon Pricing to Product Pricing

I believe that carbon pricing by itself can make a strong impact on climate goals. However, to reach greater levels of awareness and acceptance, it is imperative the true cost of decarbonization be reflected in product and service pricing.

- Incentivizes Sustainability:** By incorporating carbon pricing into product pricing, companies are incentivized to reduce their carbon emissions and adopt more sustainable practices. This shift can lead to significant reductions in greenhouse gas emissions and contribute to a low-carbon economy. For example, the French multinational company LafargeHolcim introduced a carbon pricing scheme in 2019 that added a surcharge to their cement products based on their carbon footprint. The revenue generated from this surcharge was invested in low-carbon technologies and renewable energy projects. As a result, LafargeHolcim reduced their CO₂ emissions by 14% in 2020 compared to their 2018 baseline.
- Encourages Consumer Choice:** When carbon pricing is integrated into product pricing, consumers are more likely to choose products with lower carbon footprints. This demand-side pressure encourages companies to prioritize sustainability and develop more eco-friendly products. For instance, the Swedish steel company SSAB introduced a carbon pricing mechanism in 2019 that added a surcharge to their steel products based on their carbon footprint. As a result, SSAB's customers, such as automotive and construction companies, are incentivized to choose lower-carbon steel products, which has led to a 12% reduction in SSAB's CO₂ emissions in 2020 compared to their 2018 baseline.
- Creates a Level Playing Field:** Connecting carbon pricing to product pricing ensures that all companies, regardless of their size or industry, face similar carbon costs. This approach helps to create a level playing field, where companies that invest in sustainability are not disadvantaged by competitors who do not.
- Generates Revenue:** Carbon pricing can generate significant revenue for

governments, which can be used to invest in renewable energy, energy efficiency, and other low-carbon initiatives.

Here's a generic example of how carbon pricing can affect product pricing:

Let's say a company produces two types of vacuum cleaners: a traditional model that uses a lot of energy and a newer, energy-efficient model. The company is based in a region where carbon pricing is in place, and it has to pay a carbon tax of \$10 per ton of CO₂ emissions. The traditional vacuum cleaner has a higher carbon footprint due to its energy consumption, resulting in a carbon cost of \$5 per unit. The energy-efficient model, on the other hand, has a lower carbon footprint, resulting in a carbon cost of \$2 per unit. To reflect the carbon cost, the company decides to increase the price of the traditional vacuum cleaner by \$5 to \$100, while keeping the price of the energy-efficient model at \$80. This way, the company can recoup the carbon cost and incentivize customers to choose the more environmentally friendly option. In this example, the carbon pricing mechanism has directly influenced the product pricing, making the more sustainable option more attractive to customers while also encouraging the company to reduce its carbon emissions. Yes, ultimately, the decision to pass on the cost of carbon pricing to customers is a business decision that depends on various factors, including market conditions, competition, and customer demand. Companies must weigh the potential impact on their profitability, market share, and reputation when deciding how to absorb or pass on the carbon costs.

There might be some resistance to passing true costs onto customers. It is a business decision that requires some intention and lots of attention.

There are three options for a business:

1. Recoup the costs associated with carbon emissions.
2. Encourage customers to prefer the more sustainable product.
3. Reduce their carbon footprint and contribute to a low-carbon economy.

Here are some factors that might influence a company's decision:

- **Market competition:** If competitors are also facing similar carbon costs, companies might be more likely to pass on the costs to maintain price competitiveness.
- **Customer sensitivity:** Companies may choose to absorb the carbon costs if their customers are highly price-sensitive or have limited flexibility to absorb price increases.
- **Product differentiation:** Companies with unique or high-value products might be able to maintain profitability by absorbing the carbon costs, as customers are willing to pay more for the product's benefits.
- **Brand reputation and sustainability:** Companies prioritizing sustainability and environmental responsibility might choose to absorb the carbon costs to maintain their brand reputation and customer loyalty.
- **Regulatory environment:** Companies operating in regions with strict regulations or carbon pricing mechanisms might have limited flexibility to pass on the costs to customers.
- **Market dynamics:** Companies may need to balance the cost of carbon pricing with fluctuations in global demand, supply chain disruptions, or other market factors that impact their profitability.
- **Long-term strategy:** Companies

might choose to absorb the carbon costs in the short term to maintain market share and customer loyalty while investing in low-carbon technologies for long-term sustainability and cost savings.

Ultimately, companies must carefully consider their business model, market position, and customer relationships when deciding whether to pass on the cost of carbon pricing to customers. The decision will depend on various factors specific to each company's situation.

Implications for Pricing Teams

Connecting carbon pricing to product pricing has significant implications for pricing teams. Here are some key considerations:

- **Incorporating Carbon Costs:** Pricing teams need to consider the carbon costs associated with each product and incorporate them into the pricing strategy. This requires a deep understanding of the company's carbon footprint and the carbon intensity of each product. Pricing teams must work hand-in-hand with their sustainability colleagues to coordinate tracking and quantification of relevant metrics.
- **Reflecting Sustainability Efforts:** Pricing teams should reflect the company's sustainability efforts and carbon reduction initiatives in the declared and implemented pricing strategy. This can involve highlighting the environmental and economic benefits of lower-carbon prod-

ucts and communicating the value of sustainability to customers.

- **Managing Price Increases:** Carbon pricing can lead to increased costs for companies, which may be passed on to customers. Pricing teams need to carefully manage these price increases to avoid negative impacts on demand and customer loyalty. They also need to combine the internal costing considerations with the external value and true pricing objectives.
- **Competitive Positioning:** Pricing teams must consider the competitive landscape and ensure that their company's pricing strategy remains competitive while incorporating carbon costs. They must benchmark similar initiatives from competitors in the market and alter management when there is a risk of resistance and customer push-back. This may also involve connecting the existing differentiation level with incremental differentia-

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tion linked to the company's carbon footprint or sustainability features.

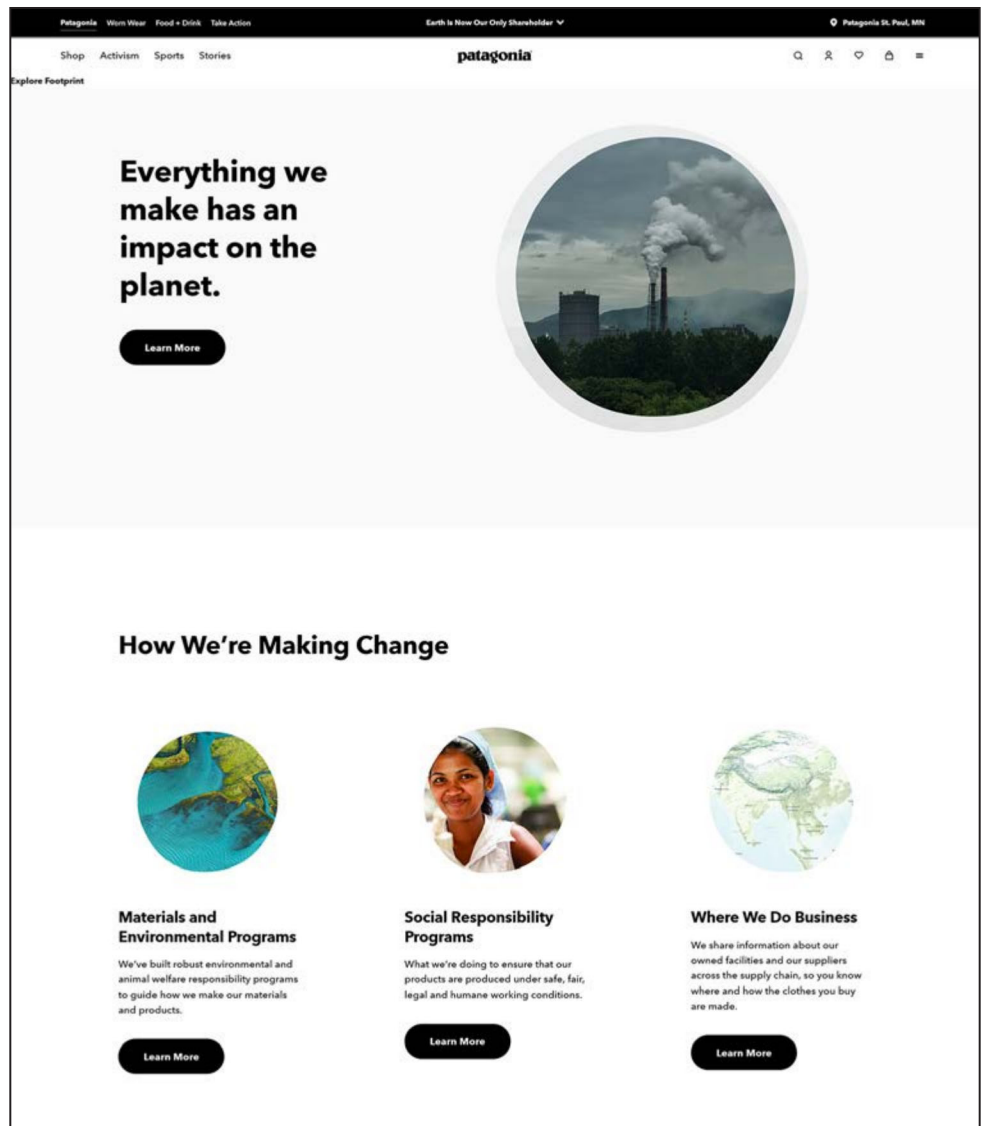
- **Developing Pricing Strategies:** Pricing teams need to develop pricing strategies that balance the need to recoup carbon costs with the need to remain competitive and maintain customer loyalty. This may involve tiered pricing, volume discounts, or other pricing mechanisms that incentivize sustainable choices.
- **Monitoring and Adjusting:** Pric-

ing teams must continuously monitor the impact of carbon pricing on product pricing and adjust their strategies as needed. This includes tracking changes in customer demand, market conditions, and regulatory requirements.

- **Collaboration with Cross-Functional Teams:** Pricing teams need to collaborate with cross-functional teams, such as sustainability, marketing, and sales, to ensure that the pricing strategy aligns with the company's sustainability goals and messaging. They must stay very close to the sales team in order to gauge the acceptance from the market of newly positioned price levels.
- **Communication with Customers:** Pricing and marketing teams must effectively communicate the value of sustainability and the impact of carbon pricing on product pricing to customers. This involves developing clear and transparent messaging that highlights the benefits of lower-carbon products.

Carbon Pricing versus True Pricing

Carbon pricing is a mechanism that places a price on carbon emissions, typically through taxes or cap-and-trade systems. This price is then incorporated into the prices of goods and services that emit greenhouse gases, such as fossil fuels, electricity, and transportation. True pricing, on the other hand, is a broader concept that aims to reflect the full range of environmental, social, and economic costs and benefits associated with a product or service. True pricing considers not only carbon emissions but also other factors such as resource depletion, water use, air pollution, and social impacts on communities and workers. Finally, true value pricing combines true pricing with the advanced concept of value-based pricing. It is probably the most advanced pricing strategy which combines traditional and sustainable value strategies.



Patagonia [publicizes its environmental footprint on its website](#), and also implements a true pricing program called “Environmental Costing.”

Carbon pricing is a crucial component of true pricing, as it addresses the climate impacts of products and services. By incorporating carbon pricing into their pricing strategies, companies can take a significant step towards true pricing. However, true pricing goes beyond carbon pricing by considering a broader range of environmental and social factors. They are complementary concepts that aim to create a more sustainable and equitable economy.

Several industrial companies have embraced true pricing by incorporating environmental, social, and governance (ESG) considerations into their opera-

tions and pricing strategies. Here are a few examples:

- **Patagonia:** The outdoor apparel company has implemented a program called “Environmental Costing,” which assigns a monetary value to the environmental impacts of their products, such as carbon emissions, water usage, and waste generation. This information is used to set prices and make sustainability-focused decisions.
- **Interface:** The carpet tile manufacturer has adopted a “True Cost” approach, which considers the environmental and social impacts of

their products throughout their lifecycle. This includes factors like material sourcing, energy use, and end-of-life recycling. Interface uses this information to set prices and prioritize sustainability investments.

- **Nike:** The athletic apparel company has developed a “Sustainable Innovation” approach, which includes a “Green X” initiative to reduce environmental impacts. Nike considers the true costs of materials, water, energy, and waste in their pricing and product design.
- **3M:** The multinational conglomerate has implemented a “Sustainability by Design” program, which integrates ESG considerations into product development and pricing. 3M considers factors like energy efficiency, waste reduction, and materials sourcing to create more sustainable products.
- **Schneider Electric:** The energy management and automation company has adopted a “Circular Economy” approach, which includes designing products for recyclability, reusability, and energy efficiency. Schneider Electric also considers the true costs of energy and resource usage in their pricing and product design.

These companies recognize that true pricing is essential to creating sustainable products and operations. By considering the environmental, social, and governance impacts of their products, they can make informed decisions that benefit both their business and

the environment.

To get started with true pricing, a company can follow these steps:

1. Define the scope: Identify the products, services, or business units where true pricing will be applied.
2. Conduct a baseline assessment: Determine the current environmental, social, and governance (ESG) impacts and costs associated with the selected products or services.
3. Set ESG goals: Establish clear targets for reducing ESG impacts and improving sustainability performance.
4. Develop a true pricing methodology: Choose a suitable approach for calculating the true costs of ESG impacts, such as life cycle assessments, environmental impact assessments, or cost-benefit analyses.
5. Gather data: Collect relevant data on resource usage, emissions, waste, and other ESG-related factors for the products or services in scope.
6. Calculate true prices: Use the chosen methodology to determine the true costs of each product or service, considering both internal and external ESG impacts.
7. Refine pricing strategies: Based on the true prices, adjust existing pricing strategies to reflect the true costs and benefits of the products or services.
8. Communicate with stakeholders: Transparently communicate the true

pricing approach and its impacts to customers, investors, regulators, and other relevant stakeholders.

9. Monitor and refine: Continuously monitor the effectiveness of true pricing, gather feedback, and adjust as needed to maintain a fair and sustainable pricing strategy.

10. Consider certification and reporting: Explore certification options to demonstrate commitment to true pricing and sustainability. Make sure you include your efforts in the next edition of your annual sustainability report.

Remember, embarking on the journey of true pricing demands a strategic and gradual approach. Companies may initiate the process with small, manageable steps, continuously refine their methodology, and stay agile in response to evolving market dynamics and stakeholder expectations. The synergy of true costing, true pricing, and value-based pricing necessitates a harmonized skill set and profound alignment between sustainability and pricing teams. If pricing is likened to a team sport, true pricing can be compared to an advanced professional sport! While some of these concepts may be novel, the decision lies in whether to defer the process or initiate it today, engaging in internal calculations. Opting to charge a premium ultimately becomes a strategic business decision, a choice best made when fully prepared. Meanwhile, active participation in the ESG process contributes to market transformation and sets the stage for impactful change. ❖