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a.s.r. real assets investment partners

Internal carbon pricing: from emissions to euros

Climate change is making CO_2 emissions increasingly relevant for financial decision-making. For institutional investors, this calls for ways to structurally take these emissions into account, for example by applying an internal carbon price.

CO_2 as a financial factor

Traditional valuation models take only limited explicit account of the transition risks of CO_2 emissions. These include stricter regulation, higher energy costs and depreciation of non-sustainable buildings. This creates a tension: real risks, but incomplete pricing. An internal carbon price (ICP) can reduce this tension by explicitly assigning a monetary value to CO_2 emissions within the organisation. This makes hidden costs visible and creates scope to integrate sustainability into strategic decision-making from a financial perspective as well.

External and internal reasons for applying an ICP

CO_2 pricing exists in two forms: an external carbon price (mandatory), established by the European Commission and national governments, and an internal carbon price (voluntary), set within an organisation. External carbon pricing operates, for example, through traditional taxation or emissions trading systems. For investors, pricing CO_2 increases the cost of high-emission activities, making (more) sustainable activities (more) attractive. This stimulates sustainable investments in businesses and industry.

The internal carbon price is the price organisations impose on themselves for CO_2 emissions, in addition to the external carbon price. Organisations consciously choose to make future risks visible sooner than the market does. In this, an ICP primarily functions as a management tool. An ICP can be applied in two ways: as a shadow price or as an internal cost item, where CO_2 emissions may or may not be financially compensated in practice.

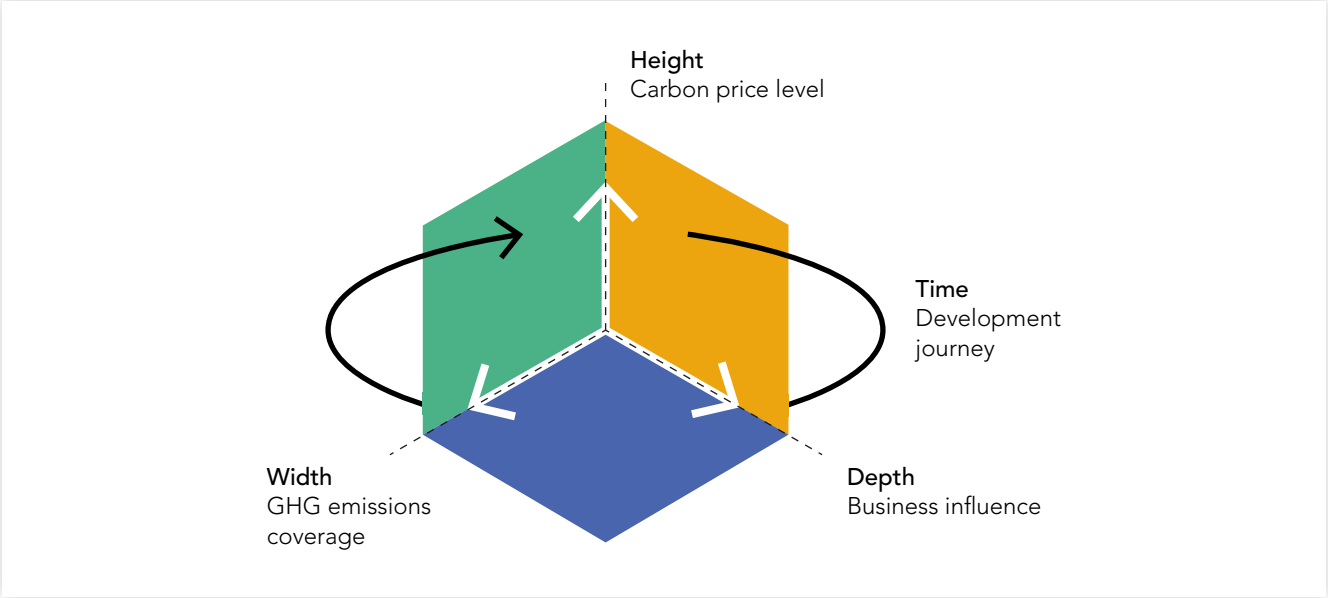
Developments in ICP

Voluntary carbon pricing is still in an exploratory phase. At an international level, various commercial and public organisations already apply a shadow price. By applying an ICP, they create financial scope to invest in projects that achieve significant CO_2 reductions compared with alternatives, or to realise low-carbon buildings. At national level, concrete action remains limited, although various local authorities apply a societal shadow price.

In the market, a distinction is made between two types of carbon prices: the societal price and the commercial price. The former is currently applied only by governments; the commercial price mainly by private sector parties. The CRREM ICP Pathway (an implied carbon price projection for real estate, derived from Paris-aligned decarbonisation pathways) provides an indication of the expected commercial carbon price and shows that the costs of CO_2 emissions continue to increase.

Application of an ICP

Due to the complexity of an ICP, a.s.r. real assets investment partners uses four dimensions derived from the Carbon Disclosure Project: height/level, time, width/scope and depth.



Height/level: what price level is required to achieve the climate targets?

Three methods are available to determine a price level: an organisation can apply a market price (the price companies pay in the external carbon pricing market), a societal price (the societal cost of CO_2 emissions) and/or an abatement price (the costs incurred by a company to meet climate targets).

To provide a transparent view of the potential risk of CO_2 emissions in real estate, we apply the market price to all emissions within the CO_2 budget and the societal price to all emissions outside the CO_2 budget.

Time: what price trajectory is required to achieve the climate targets?

The development of the market price for CO_2 is determined by supply and demand and will evolve over time. Both the World Bank and CRREM provide forecasts of this development, with CRREM focusing specifically on the real estate sector and the World Bank taking a more generic approach. For the societal and abatement price, the development over time is driven by inflation, as these represent costs incurred by society and organisations respectively.

For CO_2 emissions within the CO_2 budget, a.s.r. real assets investment partners follows the CRREM ICP Pathway.
For emissions above the CO_2 budget, the societal price develops in line with the ECB target inflation (2%).

Width/scope: which emissions fall under an ICP?

Buildings generate two types of emissions: material-related and operational emissions. Material-related emissions are the CO_2 emissions arising from construction materials and building activities during the construction phase. Operational emissions are the CO_2 emissions resulting from energy consumption during the use phase. Currently, many parties report only operational emissions, with growing interest in also including material-related emissions in reporting. Both types are required to obtain a complete view of the impact of a building on the climate.

We apply the internal carbon price to both operational and material-related emissions, where data is available.

Depth: which investment decisions fall under an ICP?
An ICP is relevant in decision-making for new investments but can also be relevant for ongoing portfolio analyses and hold/sell analyses by real estate asset managers.

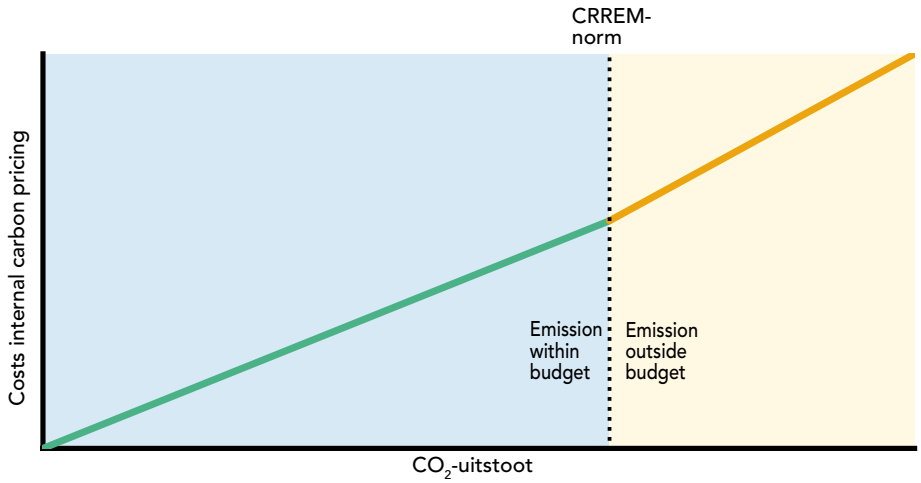
At a.s.r. real assets investment partners, the ICP is applied in pilot form in internal decision-making for the selection of new investments and during the monitoring of existing investments.

Within and outside the budget

The figure below illustrates how the internal carbon price is constructed in relation to the level of a fund's CO_2 emissions. As long as emissions remain within the CO_2 budget – meaning in line with the CRREM norm – costs increase gradually, in line with the market price for CO_2 as derived, for example, from the CRREM ICP Pathway. This is the green section of the line.

Once emissions exceed the CRREM budget (the vertical dotted line), the methodology changes. For these 'non-Paris-aligned' emissions, the market price is no longer applied; instead, a higher societal price is used. This results in a distinctly steeper and higher cost curve (the yellow line), ensuring that the financial impact of exceedances is explicitly reflected in the costs incurred. As discussed earlier, these costs can be treated either as a shadow price or as an actual internal cost item.

In practice, applying an ICP may lead to lower expected returns for carbon-intensive investments, and therefore to different investment decisions.



From experiment to instrument

In practice, applying an ICP involves uncertainties. For example, the quality of data on CO_2 emissions is not yet sufficient everywhere to enable consistent and comparable analyses. In addition, there is uncertainty about the appropriate price level, partly because market and policy developments are still evolving. There is also currently a lack of a standardised methodology, making outcomes difficult to compare across organisations.

a.s.r. real assets investment partners does not see internal carbon pricing as a fixed instrument or tool, but as a direction of development. An ICP requires market participants to make explicit trade-offs between economic rationality, responsibility and long-term impact. This makes it visible to what extent transition risks are actually factored into portfolio decisions and where this is not yet the case. These insights are used in internal analyses, the selection of new investments and in the dialogue with fund managers. As a result, CO_2 shifts from an external constraint to a factor that explicitly helps guide investment decisions.

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