Overview of Carbon Pricing Mechanisms (CPMs)

CPMs enable the incorporation of climate change costs into economic decision-making processes and help create incentives for the development and deployment of low-carbon processes and technologies. The broad goal of CPMs is to help ensure that emission externalities are reflected in spending and production, thereby allowing markets to achieve more efficient outcomes with lower greenhouse-gas (GHG) emissions.

Our Research analysts group CPMs under two main approaches, implicit and explicit.

- **'Explicit'** programmes aim to put a specific cost on any given amount of carbon emissions, such as direct taxes on carbon emissions, or mechanisms by which businesses trade a set number of emissions allowances preset by the government ("cap and trade").
- **'Implicit'** schemes include many of the more traditional policy instruments—such as regulatory measures and gasoline taxes—that do not directly price emissions, but establish some implied price through the cost of compliance.

	CPM	Used by	Description and Use	Impact	Examples
Explicit	**Carbon Tax**	-Governments -Public sector -Private sector	Price on GHG emissions	Promotes lowering of the GHG emissions, by putting penalty over the polluters	Canada, France, Sweden, etc.
	Social Cost of Carbon (SCC)	-Governments	Price on GHG emissions	Captures the economic damage that results from increased GHG concentration	UK, US, Germany, Canada
	Border Tax Adjustment (BAT)	-Governments	Price on GHG emissions	Penalty on imported products to prevent 'carbon leakage'	EU and US are both planning BATs
	Emissions Trading (ETS)	-Governments (federal and/or municipal)	Price based on available permits under capped GHG allowances	Delivers a specific environmental outcome by placing a limit on permissible emissions (cap)	EU-ETS, UK-ETS, US-ETS Regional Greenhouse Gas Initiative (RGGI)
	Carbon Credits	-Governments -Public sector -Private sector	Emission offset	Incentivizes direct investments towards low-carbon economy transition	Carbon offset schemes: Clean Development Mechanism (CDM), Gold Standard
	Internal Carbon Price/ Shadow Price	-Public sector -Private sector	Price on GHGs, which businesses can then factor into investment decisions and business operations	Incorporate climate risks into the cost of doing business based on anticipated future carbon taxes and/or carbon border taxes	E.g Microsoft (Internal Price), Shell (Shadow Price)
Implicit		-Public sector -Private sector	Price based on cost spend to lower GHGs and/or complying with government regulations	Incentivizes companies to incorporate sustainable business practices and implement regulations	Fossil fuel taxes

Source: Barclays Research