

Can You Put a Price on Pollution

- Carbon pricing is looking like the missing ingredient for world's search for decarbonisation
- How are global economies reacting to this need to become 'carbon neutral' and what are the instruments being used?
- Where and how do financial services fit into this, and how is it going to become economically viable?

CARBON PRICING IMPORTANCE TO ECONOMIC DECISIONS

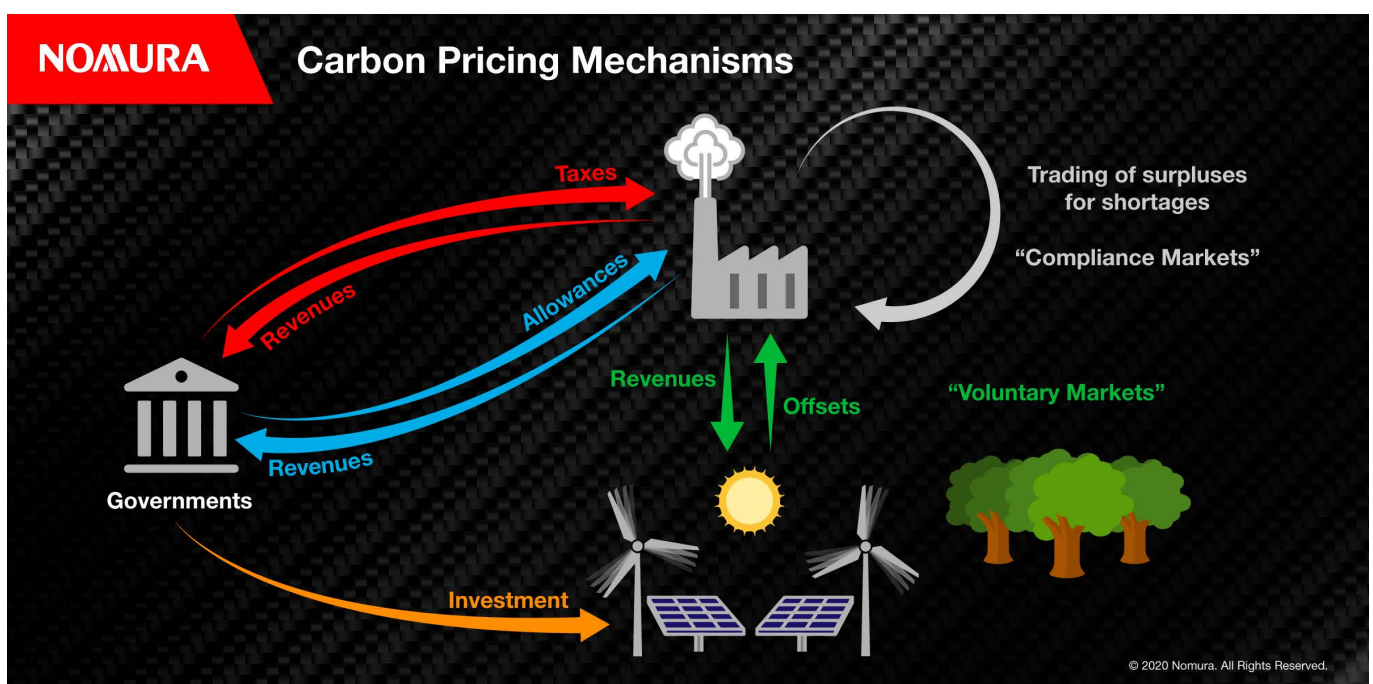
The ever deepening focus on sustainable finance is most certainly based in an environmental crisis-led trend, with growing recognition of the criticality of decarbonising the world's economy. China (by 2060), Japan, South Korea, UK and EU (by 2050) have all recently committed to Carbon Neutrality, and US President Elect Joe Biden also talks in these terms.

Emissions of carbon into the atmosphere must be limited, and foundational economic analysis tells us that carbon emissions should be treated as a scarce resource, and need to be managed by supply and demand dynamics. To achieve this, emissions need to be restrained and priced.

Enter Carbon pricing, it is an approach to reducing carbon emissions that uses multiple instruments to pass on the cost of emitting carbon emissions to the emitters, aka the 'polluter pays'. In 2020 however, the world economies to a significant extent operate without this price being in place.

The result today is that most businesses operate without adequate consideration of this missing cost. Commercial decisions are made without the full consideration of this externality, and we cannot therefore expect the right decisions.

TOOLS IN THE BAG TO HELP IMPLEMENT CARBON PRICING



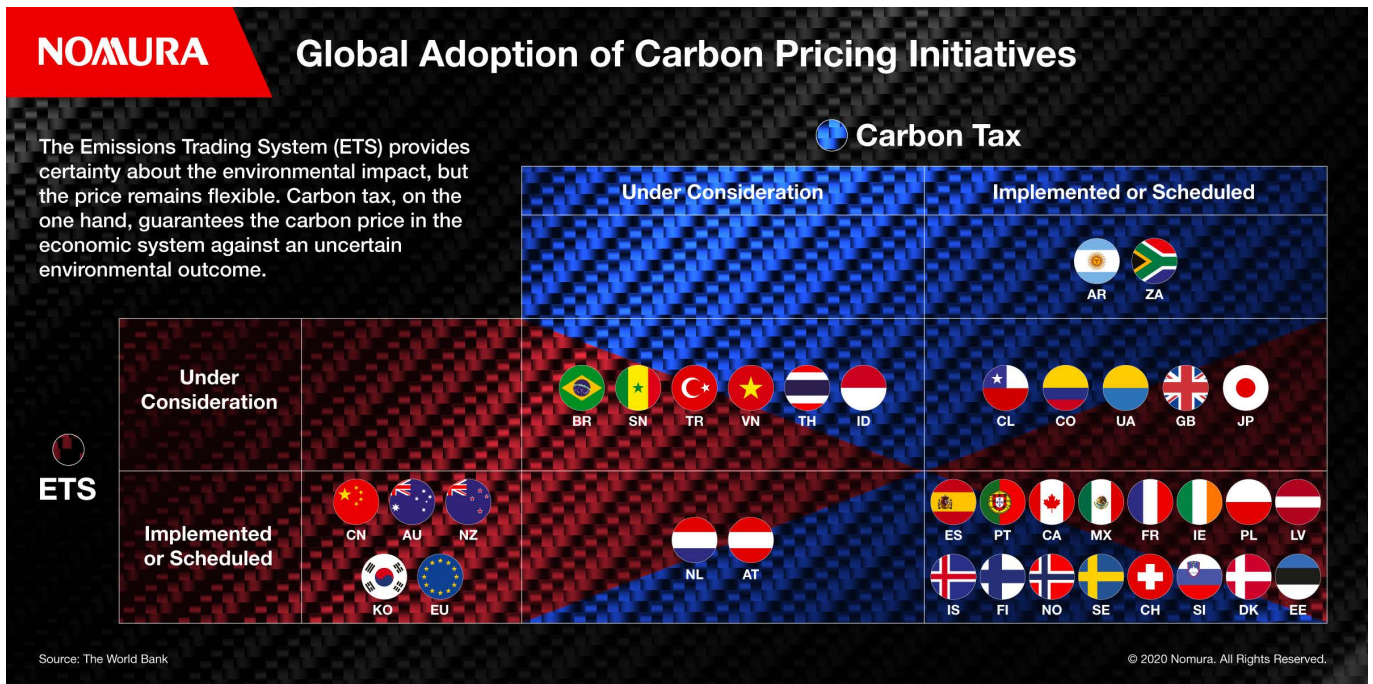
CAN YOU PUT A PRICE ON POLLUTION

One of the main weapons of choice in the fight against carbon emissions is Emission Trading Schemes (ETS), *The Economist* has estimated that around 20% of the world’s emissions are today covered by such schemes.

The EU is the largest adopter of ETS, with the EU Green Deal pledging to increase the EU ETS coverage from 45% to 55% of emissions by adding further sectors, and reducing pricing allowances by 2.2% per annum to force change.

China is following suite and is close to implementing its own planned scheme, additionally there are state schemes in the US, and these are likely to get more backing as the US president elect Biden re-joins the ‘Paris Agreement’.

Outside of ETS, governments have taxation as a carbon reduction instrument. Most notably carbon border taxes, which have the aim of not only penalising carbon intensity of imports, or carbon intensive transport costs of those imports, but also protecting the domestic corporates from the arbitrage of operation overseas to avoid other carbon measures.



ECONOMIC VIABILITY AND FINANCIAL SERVICES ROLE IN HELPING

Ultimately the need is for sufficiently high carbon pricing that firstly makes legacy carbon intensive activities unviable, and consequently makes low carbon activity, and decarbonisation, economically viable initiatives.

Banks and fund managers should be looking to track the CO2 emission levels of the firms they invest in, and directly seek to lower these through engagement or divestment. More structurally, banking prudential management is increasingly focussed on carbon as a risk factor, where aggressive policy change could have significant impact on high carbon businesses that are unprepared.

Carbon pricing, at meaningful price levels, is a key factor for decarbonisation. Such schemes are also a way for governments to raise finance for other green initiatives, so have a valuable secondary effect.

Governments will, however, need to consider the implications and social policy dynamics of such schemes. Charges on domestic heating and personal transportation has a detrimental immediate effect on society and needs to be considered with balanced social policies.

DISCLAIMER

This article first appeared in fuller form and in the Nomura Sustainability Quarterly Winter 2020 edition, published by the Nomura Institute of Capital Markets Research (NICMR).

The information contained herein (the "Information") is provided to you by the Sales, Structuring and or Trading Departments of Nomura International plc ("NIP"). NIP is part of the Nomura group of companies ("Nomura") and the Information may contain contributions from employees of the Nomura group of companies. NIP authorised by the Prudential Regulation Authority ("PRA"), regulated by the UK Financial Conduct Authority and the PRA and is a member of the London Stock Exchange. The Information is confidential and has been furnished solely for your information and must not be referred to, disclosed, transmitted, reproduced or redistributed, in whole or in part, to another person.

The Information is subject to the following terms:

- It is provided to you to promote investment services generally and Nomura and/or connected persons do not accept any liability whatsoever for any direct, indirect or consequential loss arising from any direct or indirect use of the Information or its content.
- It is intended for (a) professional clients and eligible counterparties as they are defined under the regulatory rules in the European Economic Area ("EEA") and (b) institutional investors as defined in the U.S. and is not subject to the independence and disclosure standards applicable to debt research reports prepared for retail investors.
- Nomura is not a designated investment adviser and the Information is therefore provided on the basis that you have such knowledge and experience to evaluate its merits and risks and are capable of undertaking your own objective analysis of the Information with respect to your specific requirements.
- It is based on sources Nomura believes to be reliable, but we do not represent that it is accurate or complete.
- Any prices, yields, figures, projections and examples or opinions expressed are subject to change without notice and may:
 - be derived from public or Nomura sources (which may not be representative of any theoretical or actual internal valuations employed by us for our own purposes) and based on various factors including, but not limited to, current prices quoted, valuation of underlying assets, market liquidity, Nomura and its affiliates' proprietary models and assumptions, economic, market, regulatory and other conditions as they exist and can be evaluated at the relevant time;
 - not include adjustments for transaction and hedging costs, accounting offsets and provisions, liquidity or credit considerations or other significant factors which may materially change actual values; and
 - refer to past or simulated past market performance neither of which is a reliable indicator of future market performance.

Consequently Nomura does not represent the Information is accurate or complete and makes no representations, warranties or undertakings (express or implied) as to the accuracy, completeness, timeliness or validity of the Information and the Information should not be regarded as implying a value for any instruments referenced in the Information for which there may not be a liquid market; nor used to determine interest payable or other sums due under loan agreements or under other financial instruments or the price or performance of any financial instrument.

- It may have been prepared in accordance with regulatory requirements which differ from those demanded under applicable jurisdictions where you are located.
- Nomura is not soliciting any action based on the Information and it should not be considered as an offer to buy or sell any financial instruments or other products which may be mentioned in it.
- It does not constitute a personal recommendation under applicable regulatory rules in the EEA or take into account the particular investment objectives, financial situations or needs of individual investors nor does it constitute tailor made investment advice as this term may be defined under applicable regulations in any jurisdiction.
- It has not been prepared in accordance with legal requirements designed to promote the independence of investment research, it is not subject to any prohibition on dealing ahead of the dissemination of investment research and any views expressed in the Information may differ from the views offered in Nomura's independent research reports prepared for investors including retail investors or from views that may be expressed by other financial institutions or market participants on the same subject matter as the Information.
- It may not be independent of the proprietary interests of Nomura. Nomura trades, or may trade, any financial instruments mentioned in the Information for its own account and such trading interests may be contrary to any recommendation(s) offered in the Information. Nomura also may have acted as an underwriter of financial instruments or other products mentioned and may currently be providing investment banking services to the issuers of such financial instruments or products.
- For the avoidance of doubt, Nomura and/or its officers, directors and employees, including persons, without limitation, involved in the preparation or issuance of the Information, may from time to time, have long or short positions in, and buy or sell, financial instruments, or derivatives (including options) thereof, of any companies mentioned in the Information or related financial instruments or derivatives.
- Nomura manages conflicts identified through our Confidentiality and Information Barriers policies, by maintaining a restricted list, a personal account dealing policy and policies and procedures for managing conflicts of interest arising from the allocation and pricing of financial instruments and impartial investment research and disclosure to clients via client documentation. Disclosure information is available at <http://www.nomuranow.com/disclosures>.

© Nomura International plc 2020