mashreq المشرق من المشرق المشرق المشرق المشرق المشرق المعام المع

Lighting the route ahead

Getting on track

 Relief valve

 Image: Construction of the second s

The stage is set for the Middle East to make its mark in the world of carbon pricing – now a \$909bn globally traded market.¹ This record high volume follows nearly two decades of global stop-start appetite to put a price on carbon. The recent surge in Net Zero targets, including the UAE's goal by 2050, and the worrying effects of climate change are propelling momentum for this highly adaptable mechanism. Crucially, today's menu of choice must not confuse, but motivate – and quickly.



المشرق 👐 mashreq



arbon markets have an underrated ace card: accessibility. It has never been easier to participate, no matter the sector nor size of a business. The 'acronum alphabet' and phased trials of pricing mechanisms in the earlier days of this evolving market caused some stakeholders to keep their distance.

Also consider that fossil fuels largely dominated companies' strategies and budgets, with the rapid expansion of renewable energy markets, environmental pledges and Net Zero targets only emerging relatively recently. Today, the option of Emissions Trading Schemes (ETS), carbon taxes, carbon fees, voluntary carbon markets (VCM), shades of internal carbon pricing (ICP) and others are all on the table (see page 6 & 8: Global progress).

Carbon pricing is no longer seen as a lone mitigation route. It is a 'climate tool', which helps raise climate-related finance and pushes innovation - two cornerstones of successful decarbonisation. Plus, sustainabilityconscious employees are attracted to companies with an awareness of carbon pricing and it enhances Environmental, Social and Governance (ESG) metrics, sharpening companies' competitive edge; ESG-focused institutional investment is expected to soar by 84% to \$33.9bn by 2026.²

Rising prices in the carbon market reflect stakeholders' growing confidence in the mechanism and ultimately make it far more environmentally effective. This year, the price of permits on the EU ETS reached a record high of \$106.57 per tonne – making it more expensive than ever to pollute.³

Price evolution in selected ETSs (2018-2022)



Note: Based on data from ICAP Allowance Price Explorer. Prices for the RGGI initiative and for California and Québec C&T, come from the primary market whereas for the other sustems the prices reflect the secondary market

Source: World Bank

120

"Putting a price on carbon, whichever mechanism companies choose, will become non-negotiable. The longer stakeholders and companies wait to engage with the various pillars of this critical mechanism, the less competitive they may be in the journey to Net Zero."

Plotting a path

Amid this vast potential, some stakeholders are still getting used to how the concept of carbon markets differs from other, more established markets; a barrel of oil is a globally understood visual representation of the oil market, for example. In carbon markets, we cannot see what is being traded and there are many routes to market and variations of what a carbon credit means to an individual or a company.

Generally, a carbon credit is defined as a permit which allows a countru or organisation to produce a certain amount of carbon emissions and which can be traded if the full allowance is not used. However, how this takes shape depends on whether the mechanism being used is cap-and-trade, voluntary markets, a carbon fee, internal carbon pricing, and so on. Consequently, there is no a single blueprint for companies



المشرق 👐 mashreq

looking to enter and operate in a carbon market. Each situation is nuanced.

The plus side of this dynamic is that the blend of greater flexibility and limited regulation in the vast majority of the Middle East means companies can explore the solution that suits them best. This is especially true because there is currently no regional cap-andtrade system, like the EU ETS, which has compulsory elements.

In the Middle East, some companies will see voluntary markets as a better fit, especially if they plan to produce ESG reports and have a particularly environmentally-aware customer base. Other companies may opt for a form of internal carbon pricing instead (see page 15), as they are at the earlier stage of pinning down their carbon footprint, adjusting internal processes to reduce it and analyses into how it affects their bottom line.

Appetite and ambition on the rise



(xiii) Instruments are considered "scheduled for implementation" once they have been formally adopted through legislation and have an official, planned start date. Instruments are considered "under consideration" if the government has announced its intention to work toward the implementation of a carbon pricing initiative and this has been formally confirmed by official government sources. Some countries that have mechanisms implemented also have additional instruments under consideration. For subnational jurisdictions only the subnational instrument is reflected.

Source: World Bank

7

المشرق 🦇 mashreq



Global progress

\$95bn

of revenues were generated by carbon taxes and ETSs worldwide in 2022 – a record high.¹

5x

growth in government revenues from carbon taxes and ETSs, as policies have evolved and diversified to reflect increased ambition.²

12.5bn

tonnes of CO_2 permits changed hands in the world's emissions markets last year – 20% less than the previous year. However, the value of the markets rose by 14% as prices for permits were much higher.³

40%

of revenue from ETSs and carbon taxes is earmarked for green spending and 10% is used to compensate households or businesses.⁴

4,200

companies worldwide now have science-based targets – growing 36x from 2007-2022 – which all feeds into appetite for more carbon trading, especially in voluntary markets.⁵



18yrs

The EU Emissions Trading Scheme (ETS) launched in 2005, making it the world's oldest carbon trading market.

\$811bn

was the worth of the EU ETS in 2022, rising by 10% on 2021 and representing 87% of the global total.⁶



\$86.5/t

of CO_2 was the average price of carbon permits on the EUETS last year – 50% higher than in 2021 as energy prices surged amid Russia's invasion of Ukraine.⁷

st

A new carbon border adjustment mechanism (CBAM) has been introduced, requiring EU importers from 2026 to purchase certificates equivalent to the weekly EU carbon price. The CBAM will initially apply to imports in five emissionsintensive sectors deemed at greater risk of carbon leakage: cement, iron and steel, aluminium, fertilisers and electricity.⁸ **2** regional carbon markets in North America – the Western Climate Initiative and the Regional Greenhouse Gas Initiative (RGGI) – were worth more than \$65bn combined in 2022.°

2021

saw the launch of China's national ETS, the world's largest such scheme. However, it was worth \$545mn last year, falling by 61% year-on-year.¹⁰

carbon pricing mechanism exists in the Middle East so far; a carbon tax in Israel, which is still under consideration.¹¹

Lighting the route ahead

Manu stakeholders take their cues vital, especially as it is one of the world's main contributors to from what financial institutions are doing, using it as a yardstick as to aetting on track for Net Zero. how fast and how comprehensive Decades of experience in developing their own actions should be. technologies and raising large Accordingly, the more financial finance bundles means industry can institutions can set a good also strengthen R&D into how low example – from designing pricing carbon technologies can strengthen mechanisms, to supporting asset projects under the umbrella managers' journey, to having an of traded carbon. Meanwhile, internal carbon price, to voluntary governments' forte lies in setting trading and much more – the the tone. They provide welcomed broader their positive influence over clarity on legalities, regulations the longer term. Their presence and the level of ambition, as most and backing also speaks volumes recently illustrated by the UAE's for stakeholders who are new to call for global action as the host of climate finance and would benefit COP28 – the world's biggest annual greatly from an education on the climate gathering – in Dubai this fundamentals of carbon markets. November. Industry players' support is also

Finding the right track

Approximately 23% of global dominate - notably North America greenhouse gas (GHG) emissions and Europe (see page 14: Staying the course). Comparatively, there are covered by carbon pricing initiatives, with 11.66 GtCO₂e via 73 is only one instrument in the Middle carbon pricing initiatives worldwide East and Africa region, although - versus two in 1990.4 While progress both regions are exploring options is undoubtedly being made, all (see page 10).⁶ entities must become far more adept at carbon markets – 77% of GHG emissions worldwide are still not covered – with just 27 years left to reach Net Zero by 2050.

Currently, voluntary demand from companies remains the primary driver of market activity (see page 11: Are you in?), but compliance demand could become more important.⁵ The uptake of ETSs and carbon taxes is on the rise in emerging economies, but high-income countries still

Sources: ¹ World Bank; ² World Bank; ³ Refinitiv; ⁴ World Bank; ⁵ Microsoft, BCG; ⁶ Refinitiv; ⁷ Refinitiv; ⁸ European Parliament; ⁹ Refinitiv; ¹⁰ Refinitiv; ¹¹ World Bank;

8

المشرق 👐 mashreq



Middle East steps forward

After years on the sidelines, the Middle East is ready to ask and hopefully answer the tough questions surrounding carbon markets. Propelled by the region's energy and climate hegemonies of Saudi Arabia and the UAE, the ins and outs of carbon pricing are increasingly moving into mainstream conversation. What does it involve? Who participates? What price level is both viable and effective? How will this progress interlace with other countries' developments, notably our partners and competitors? How does carbon pricing weave into our existing and bold climate targets and multi-billion dollar green projects?

The questions go on; creating a national carbon market is not a quick journey. The market itself is always maturing and so stakeholders need to not only keep abreast of their own plans, but also how they slot into the global picture. These are the first steps. Plans to establish a regional carbon trading hub – perhaps echoing elements of the premise of the EU ETS – is part of the long-term strategic roadmap.

In the UAE, Abu Dhabi Global Market (ADGM) recently announced the formation of a voluntary carbon credit trading exchange and clearing house. Also in the UAE, Mubadala Investment Company acquired a strategic stake in AirCarbon Exchange (ACX).¹ Plus, OPEC's third largest producer has signed a memorandum of understanding (MoU) with Zambia to develop forestry-based carbon removal projects in the African nation to generate carbon credits. The agreement falls under Article 6 of the Paris Agreement, which allows international trade in carbon credits used to meet countries' targets that are set out in their Nationally Determined Contributions (NDCs).² The UAE also recently became the 26th country worldwide to agree to a bilateral carbon trading framework with Japan under the Joint Crediting Mechanism (JCM).³

To the west, Saudi Arabia's Public Investment Fund (PIF) announced the establishment of the Regional Voluntary Carbon Market Company last October, with Saudi Tadawul Group Holding Company.^₄ Shortly after, PIF auctioned off 1.4mn tonnes of CORSIAcompliant* carbon credits – the largestever worldwide.⁵ The scheme has been designed with methodologies for the national circumstances of the largest economy in the Arab world and is inclusive, i.e., it is sector agnostic with all technologies on the table. This is in line with the kingdom's circular carbon economy (CCE) philosophy, which it spearheaded when it held the G20 Presidency in 2020 – sending a clear message of intent, despite the rapid spread of COVID-19.º The Dammam-based investment fund APICORP also issued a \$75mn funding facility for voluntary carbon offset projects last November.7

Are you in? 2030

will see the size of the voluntary carbon market grow by a factor of five, transacting volumes comparable to the annual emissions by the global aviation industry in 2019.¹

\$2bn

was the value of the global voluntary carbon offset market in 2021, with forecasts expecting the market's total value to reach \$40bn by 2030. This would mean it was transacting 0.5-1.5bn tonnes of CO_2 equivalent, versus 500mn tonnes today.²

90%+

Nearly all those who buy voluntary carbon credits want and need a reputable monitoring, reporting and verification (MRV) framework as a top criterion.³

50%+

of surveyed companies expect removal credits to dominate their portfolio by 2030, even though they are costly, as their quality makes them easier to verify. Technology-based removals are also likely to gain market share.⁴

2,000

leading global companies that Bain & Company completed a bottom-up analysis of revealed that the voluntary carbon market could provide demand for up to 2.6Gt of carbon credits by 2030, a factor approximately 13 times larger than the market in 2021. Sources: ¹Shell; ²Shell; ³BCG; ⁴BCG;



المشرق 👐 mashreq

WHITEPAPER Mashreq - Gulf Intelligence Energy Partnership Clearing the mist

It could be easy to underestimate the importance of carbon pricing – a cornerstone mechanism in global decarbonisation – as a plethora of information about Net Zero flows across stakeholders' screens every day. Considered one of the more complex areas of decarbonisation, stakeholders have also had reservations over accountability, validity and double counting.

For example, a survey conducted in late-2022 revealed that more than 90% of corporate respondents are targeting Net Zero by 2050, yet less than 25% of these respondents plan to compensate for any emissions before achieving Net Zero.⁷ More than 50% of the respondents highlight market imperfections and a lack of transparency on climate impact and quality as reasons for their inaction and unwillingness to participate in the voluntary carbon market. Additionally, respondents emphasise the reputational risk of participating, with concerns about public criticism, including legal action,⁸ i.e., complaints of greenwashing.

There is a degree of trial-and-error in any evolving market and much has been done to address potential weak spots. For example, the Integrity Council for the Voluntary Carbon Market (ICVCM) recently launched its Core Carbon Principles and Programme-level Assessment Framework, setting rigorous thresholds on disclosure and sustainable development for highintegrity carbon credits and establishing a pathway towards even higher ambition. Developed with input from hundreds of organisations throughout the voluntary carbon market, the Core Carbon Principles (CCPs) sets out fundamental principles for high-quality credits that create real verifiable climate impact.

More clarity and communication around

purchasing high-quality carbon credits to help prevent deforestation projects would also help. Deforestation accounts for 15% of global CO₂ emissions, yet natural climate solutions can provide one-third of the mitigation required by 2030 to achieve global climate goals and are also some of the few solutions that are ready today for carbon removal.⁹ Conserving natural carbon sinks has significant benefits beyond emissions reduction: around 350mn people rely directly on forests for more than 20% of their income and 80% of terrestrial species reside in tropical forests.¹⁰

"Several Middle Eastern countries are now actively exploring what putting a price on carbon means for them; the best mechanism for them, the pros and cons, how they interact with other nations and how it can propel their own paths to Net Zero..."

Another example is how restoring seagrass – a type of flowering plant, which evolved from terrestrial plants that recolonised shallow marine ecosystems more than 100mn years ago¹¹ – would be far more challenging without the financial incentive of voluntary carbon offsets. Seagrass is part of growing interest in marine and coastal carbon sinks. Known as vegetated coastal ecosystems (VCEs), they include salt marshes, mangrove forests and seagrass beds.

Though this "blue carbon" only makes up 0.2% of marine ecosystems, they are responsible for nearly 50% of the carbon sequestered in marine environments.¹² In support of using nature to drive decarbonisation, the UAE is aiming to plant 100mn mangrove plants nationwide by 2030, with state-owned energy giant ADNOC taking responsibility for 10% already.¹³

Plugging the gap

57%

of sustainability professionals do not have experience or degrees in this space,¹ which is a weak starting point to elevate companies' carbon trading experience.

40%

of people in sustainability teams were hired for their sustainability expertise.² This is a concerningly low number, especially when tackling more challenging aspects like carbon pricing and Scope 3.

≈33%

of sustainability respondents said they are not an expert in any field.³

66%

of sustainability leaders are hired from within,⁴ so significant in-house training is needed to keep elevating workers' understanding and skill sets, including for carbon markets.

Relief valve

The time is now. Energy stakeholders in the Middle East – the historical epicentre for fossil fuels and an aspiring champion on the global climate stage – must become far more engaged in carbon markets. Taking oil and gas out of the ground, processing it and delivering it to consumers accounts for almost 15% of global energy-related emissions. That is more than all the emissions produced by the US, the world's biggest economy, or twice the emissions of the entire EU¹⁴ – home to nearly 800mn people combined.¹⁵

The good news is that global energyrelated CO₂ emissions rose by under 1% in 2022 – less than initially feared – as the The huge variation among different oil and growth of solar, wind, electric vehicles (EVs), gas producers in terms of how much their heat pumps and energy efficiency helped operations emit - and in turn, how much CO limit the impacts of the increased use of they offset and aim to remove – also needs coal and oil amid the energy crisis.¹⁸ While addressing. Currently, the worst performers far smaller than the exceptional jump of generate four times as much emissions over 6% in 2021,¹⁹ emissions still remain on as the best.¹⁶ By 2030, the global industry an unsustainable growth trajectory. Carbon needs to be performing at a similar level to pricing measures offer a much-needed relief today's best performers. valve as the energy industry finds its feet.

Hard-to-abate sectors can feel trapped by nations' Net Zero goals and the rise of other environmental frameworks like CORSIA (which affects busy aviation hubs like the Arab Gulf; Dubai International Airport is the world's busiest for international flights¹⁷). There are currently few cost-efficient

المشرق 👐 mashreq

13.6x

the size of the UAE's total population – 150mn people – may need to be upskilled worldwide in less than ten years to turn sustainability ambitions into action.⁵

2030

The next seven years may see more than 100mn workers across eight economies – China, France, Germany, India, Japan, Spain, the UK and the US – switch occupations.⁶ Ensuring understanding of carbon markets amid this shifting landscape is key, for many countries have different approaches and there will be increasing need for fungibility, i.e., the introduction of the EU's CBAM.

Sources: ¹ Microsoft et al; ² Microsoft et al; ³ Microsoft et al; ⁴ Microsoft, BCG; ⁵ Microsoft, BCG; ⁶ McKinsey.

emission reduction solutions for energyintensive sectors, which calls on these industries to invest in R&D to develop low carbon technologies, policies and appoint and train agents of change. However, this process takes time, especially as the skills across the workforce are still catching up (see above: Plugging the gaps). Therefore, carbon pricing provides an interim solution, whatever form that may take.

Staying the course

Time is too short to allow the global economic outlook to derail this rejuvenated momentum for carbon markets. Global economic growth is expected to slide from 3.4% in 2022 to 2.8% in 2023, before settling at 3% in 2024. Advanced economies – where carbon pricing tends to be more advanced – are expected to see an especially pronounced growth slowdown, from 2.7% in 2022 to 1.3% this year.¹

So far, ETSs and carbon taxes have proven resilient; several jurisdictions either delivered on existing plans, increased their ambition or announced further proposals for developing initiatives in the coming years. New instruments were implemented in Austria and Indonesia, as well as in subnational jurisdictions in the US and Mexico. Australia is scheduled to recommence carbon pricing with a rate-based ETS from July 2023 and countries including Chile, Malaysia, Vietnam, Thailand and Türkiye continue to work towards implementing direct carbon pricing.²

"Even in difficult economic times, governments are prioritising direct carbon pricing policies to reduce emissions. But to really drive change at the scale needed, we will need to see big advances both in terms of coverage and price," Jennifer Sara, Global Director for Climate Change at the World Bank shared in the latest State and Trends of Carbon Pricing report.

Plus, recent developments on Article 6 suggest a potentially clearer pathway for international carbon markets.³ However, much more work is needed to build the administrative capacity for countries to engage further. Stakeholders must act now within the parameters of existing carbon pricing architectures to start making progress; a global system will take years to transpire.

Sources:¹ International Monetary Fund (IMF);² World Bank;³ World Bank

Evolution of global revenues from carbon taxes and ETSs over time (nominal)



WHITEPAPER Mashreq – Gulf Intelligence Energy Partnership

A public statement

It is better to do something than nothing; rhetoric that certainly applies to the rise in internal carbon pricing. There was an 80% increase in the number of companies worldwide using an internal carbon price or planning to from 2015-2020, with more than 2,000 companies disclosing current or planned used of an internal carbon price.

Notably, the combined market capitalisation of these companies exceeded \$27trn, up from \$7trn in 2017.¹ Geographically, Japan, the UK and the US had the highest percentage of companies using internal carbon pricing as of 2021, with 24%, 20% and 15%, respectively.²

There are four primary types of internal carbon pricing; shadow price, carbon fee, implicit price and internal trading. This diversity represents an area of opportunity for Middle Eastern companies, allowing more routes of entry to carbon markets. They will also benefit from the ancillary data gathering required to establish an internal mechanism when it comes to completing their inaugural ESG reports in coming years – a move which directly supports commercial competitiveness, access to funds and reputational value.

IN FOCUS

Microsoft launched an initial carbon fee in 2012, focusing on Scope 1, Scope 2 and business air travel. The proceeds from the fee provided funding for the company's carbon neutral commitment at the time. In 2022, Microsoft redesigned and increased its carbon fee to accelerate Scope 3 emissions reduction and match the underlying costs of carbon abatement as it ramped up its environmental pledge to be carbon negative by 2030. Also, by 2050, Microsoft aims to remove from the environment all the carbon the company has emitted since it was founded in 1975. Admitting this economic-environment juggling act is not easy, the company has still posted revenue growth of as much as 22% year-on-year since 2018.³





Direct vs in-direct pricing

Direct carbon pricing instruments provide a clear price signal with the aim of reducing GHG emissions. These include ETS carbon taxes and carbon crediting. Recently, the World Bank's new diagnostic, the Country Change and Development Report (CCDR), emphasised the potential for direct carbon pricing policies to support countries on their development journeys.

Comparatively, indirect carbon pricing refers to policies that change the price of products associated with GHG emissions in ways that are not directly proportional to the relative emissions associated with those products. These instruments (such as fuel excise taxes) provide a carbon price signal, even though they are not usually implemented to achieve climate outcomes.¹

Companies need to choose the right route to balance their commercial growth against their environmental pledges – both are crucial, both are inevitable. Understanding how to effectively use carbon pricing to achieve harmony must support strategic growth, not dull it.

المشرق mashreq

Source: ¹ World Bank

