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# Investing in a Climate-constrained world

# The Green transition

The transition to “net zero” carbon emissions gathered pace in 2022, albeit with bumps along the way. Looking ahead, we believe that individual, corporate and government focus on managing climate-related shifts is likely to accelerate, with a particular emphasis on achieving “net zero” goals.

The focus on climate change and its impact on investment landscape is not new. However, what has changed in recent years is the increased focus from major economies as well as corporates as they strengthen their efforts to reduce emissions. The recent moves to encourage or even mandate companies to disclose their climate change impact and net zero transition plans have been a catalyst to spur increased investments into this space.

While the COP27 (United Nations Conference of Parties) had limited success in terms of agreeing to more stringent emission targets, we have seen progress on funding of loss and damage from climate change and modest reduction in emission targets. This follows the progress made in the US and Europe in form of the Inflation Reduction Act (IRA) and the RePowerEU plan announced earlier in 2022. A combination of consumer awareness, and corporate and government initiatives is likely to continue to result in substantial investment in new infrastructure, technology and solutions to enable a transition to “net zero”.

## **The Green transition is beyond energy**

The potential opportunities from transition to a less carbon intensive world are not limited to just the realm of renewable or clean energy. While more investment in renewable energy is undoubtedly going to be a key focus, we also see investments linked to water security, infrastructure upgrades and green capex, electric vehicles, and even carbon trading and offsets likely to benefit from the structural tailwinds over the next 3-5 years.

The green transition may also result in seemingly counterintuitive tailwinds to parts of the mining sector as the increased transition to electric vehicles, battery storage and improvements in electricity grid push up demand for a few key metals, such as lithium, copper and cobalt. Similarly, we see semiconductor demand benefitting from the transition as chips form a crucial component to improve efficiency of various clean energy technologies.

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# Setting the stage – Key policy initiatives

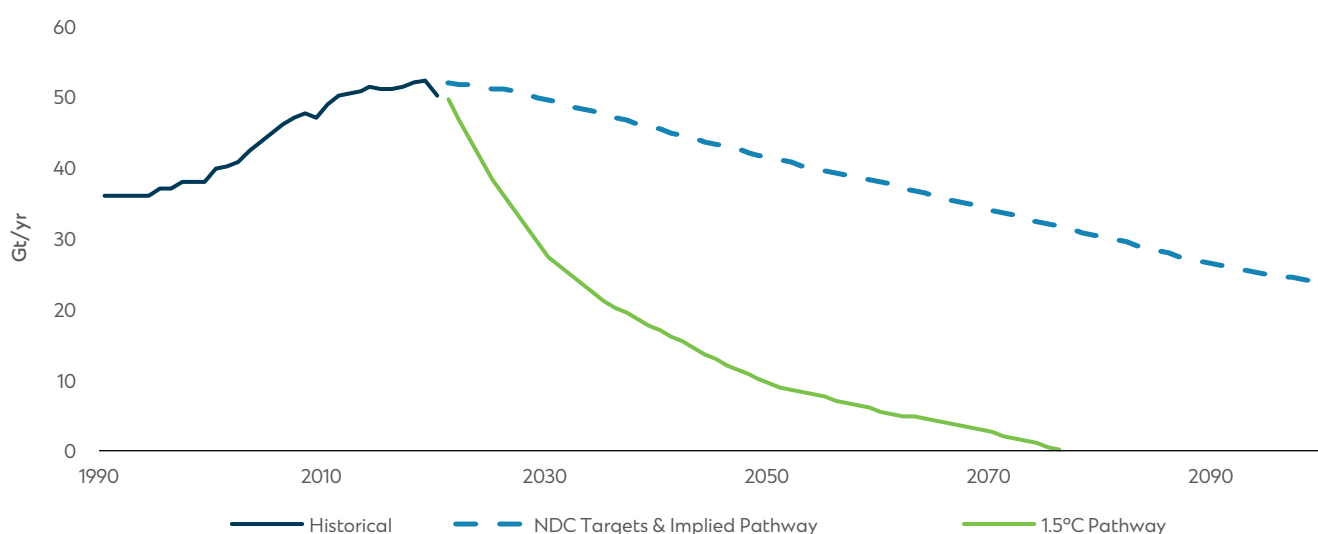
To say that 2022 was a challenging year for investors would be quite an understatement. Both equities and bonds saw broad-based declines as rising bond yields, weaker economic outlook and normalising of expensive valuations weighed on investment returns. Climate and net-zero related investments were not unscathed and delivered negative returns at the time of writing, with Green infrastructure being the notable exception.

However, from a forward-looking basis, 2022 was also a year that set some key policy foundations that are likely to support climate related investments for the next 5-10 years. Among the multiple policy actions taken, three stand out:

## 1 COP27

Optimism heading into the COP27 summit in Sharm el-Sheikh, Egypt, was high, especially after the resounding success of COP26 in inducing a marked urgency to tackle climate change. While the agreements reached in the conference were somewhat underwhelming, they were not surprising, given the challenging economic and geopolitical backdrop this year. COP27 was expected to see progress on implementation of the measures introduced in the previous summit, especially towards formalising the emissions target to help achieve the goal of limiting global temperature increase to 1.5°C. However, only 26 of the 194 signatories have submitted their revised nationally determined contributions (NDCs). The current commitments point towards a flat level of emissions by 2030 (vs 2019 baseline), compared to 1% increase projected in COP26. While this is a modest improvement, it falls short of the 43% reduction from baseline needed to achieve the goal of limiting temperature increase to 1.5°C.

### Current climate commitments fall short of the 1.5°C pathway

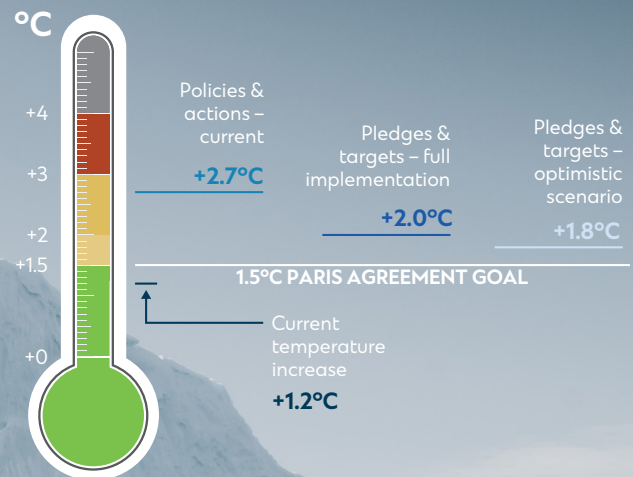


Source: Climate Action Tracker, Standard Chartered



However, there was encouraging progress in the loss and damage agenda, with developed nations agreeing to deploy funds toward climate-related impacts in developing nations, which is on top of the existing USD 100bn pledge to help finance infrastructure in developing countries. There was also progress in scaling global carbon markets.

Current policy commitments imply a temperature rise of 2.7°C by the end of the century – more needs to be done to meet the 1.5°C target



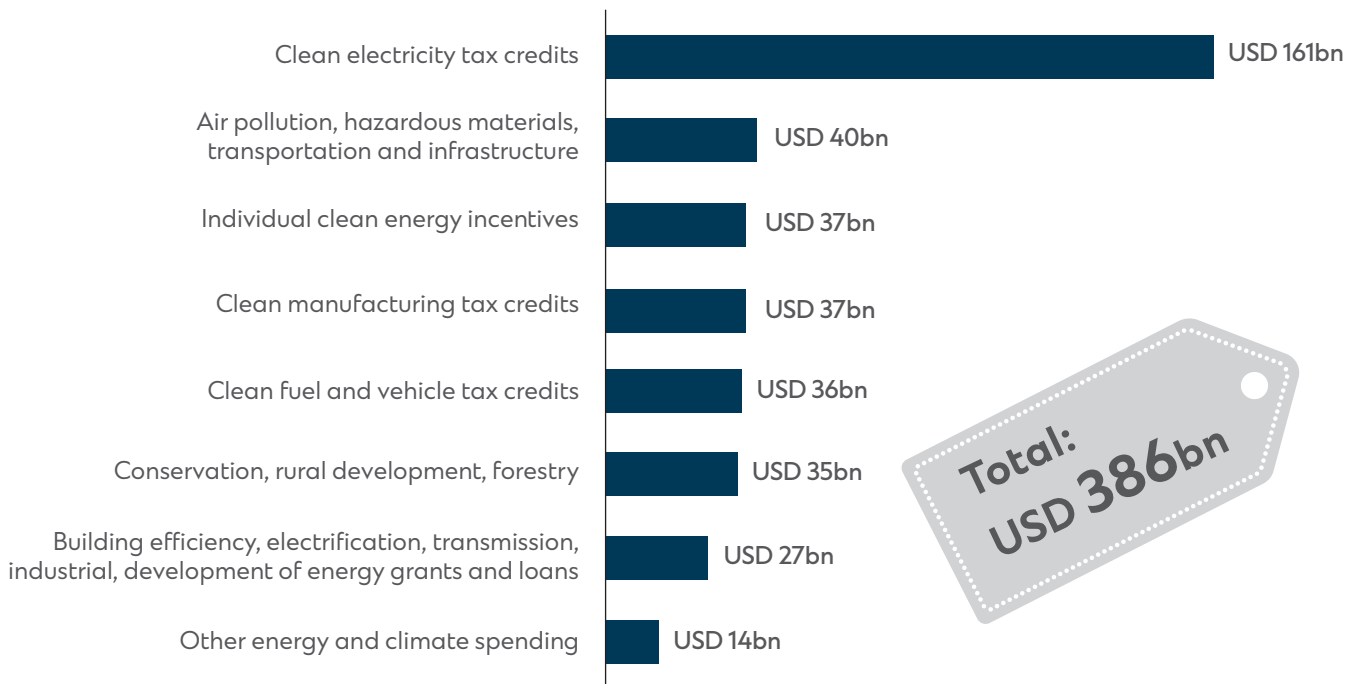
Source: Climate Action Tracker, Standard Chartered

## 2 US Inflation Reduction Act (IRA)

In August 2022, US President Biden announced “the largest investment ever in combatting the existential crisis of climate change”. The Act includes USD 386bn in energy and climate spending. The legislation puts the US on course to reduce approximately 40% of the country’s emissions by 2030 and cut climate costs by up to USD 1.9tn by 2050. USD 265bn of the budget goes towards providing clean energy tax incentives. Businesses are incentivised to invest in and produce clean, renewable energy and low emission fuels, while the rebates make clean technologies affordable for consumers and encourages homeowners to modernise their homes to be more energy efficient.

We believe the IRA can accelerate transition to a more sustainable economy

Breakdown of IRA climate spending and tax credits



Source: Committee for a Responsible Federal Budget, Standard Chartered

## 3 RePowerEU

The Russia-Ukraine conflict brought Europe’s dependency on Russian gas imports starkly into the spotlight. In order to reduce their external dependence, the European Union launched the RePowerEU plan that sets out to decouple Europe from Russian oil and gas. As per EU estimates, achieving the target energy efficiency and scaling of renewables would require an additional EUR 210bn in investments till 2027.

# Opportunities from the Green transition

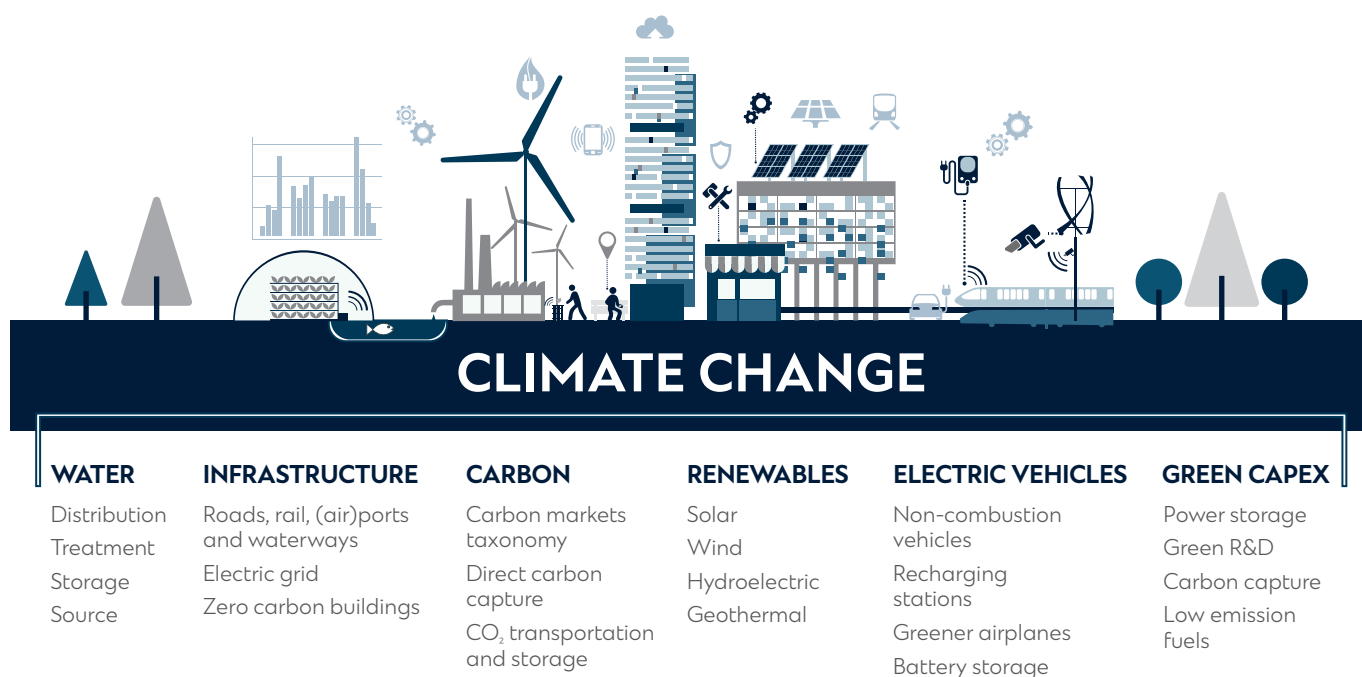
The recent policy announcements and investments are only the beginning of what is likely to be a decade long journey towards a less carbon intensive global economy.

## Clean energy

In its 2022 World Energy Outlook, the IEA's Net Zero Emissions (NZE) 2050 scenario estimates that annual investment in clean energy would need to triple by 2030 to approximately USD 4tn. The independent High-Level Expert Group on Climate Finance (IHLEG) estimates approximately USD 2.4tn is needed in developing countries alone.

While clean or renewable energy is likely to see substantial investments over the next few decades, it is not the only direct beneficiary of increased investments.

Potential areas that 'climate change' transition is likely to target



Source: Standard Chartered



## Water

As per the UN's Sustainable Development Goals (SDG), water availability and security is likely to be another key focus, given that a large percentage of global population lives in areas of high water stress, and are vulnerable to effects of climate change and shrinking reserves. As per an OECD report, up to USD 22.6tn worth of investments may be needed by 2050 to finance investments into better wastewater management, conservation and protection of drinking water.

## Infrastructure and green investments

As per OECD estimates, USD 6.9tn annual investment is needed till 2030 to meet climate related objectives. With the current energy infrastructure, including buildings being large contributors to greenhouse gas emissions, we see the current level of spending on infrastructure as inadequate to achieve the 'net zero' commitments. We see investments in upgradation of energy grids, storage as well as green and more energy efficient buildings accelerating over the next 5-10 years.



## Electric vehicles

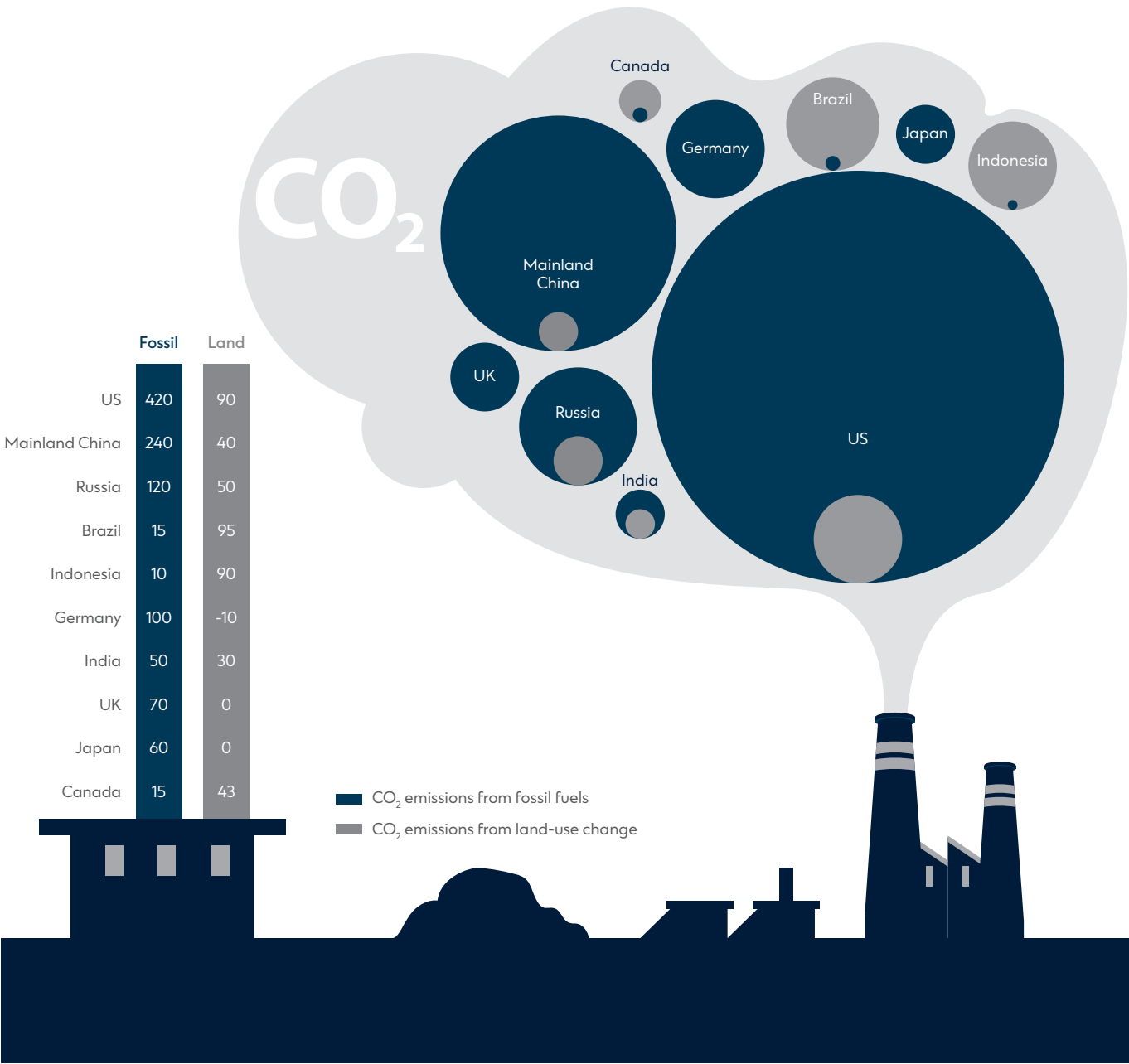
Over the past few years, we have seen significant policy support to increase the adoption of electric vehicles, whose sales have grown at nearly 50% per annum since 2015. Subsidies, tax rebates, higher fuel process and growing consumer awareness have played a key role of driving the adoption. We view two drivers as key to sustaining the strong growth in electric vehicles: (i) policy support – with tighter emission standards and upcoming ban on sale of internal combustion engines (ICEs) in over 20 countries and (ii) increased network effect as general confidence increases towards reliability of electric vehicles and supporting infrastructure, such as network of charging points and maintenance support, which we expect will increase adoption.

# Carbon

Progress on the development of carbon markets was one of the key takeaways from COP27. African leaders launched African Carbon Market Initiative with the aim of generating USD 6bn in annual revenue by 2030, while there was also an agreement to create a global carbon market to facilitate efficient trading of carbon. Based on the current framework, countries can trade carbon credits on bilateral or a multilateral basis, with further discussion planned for future COPs. These developments have the potential to spark improvement in liquidity and trading volumes in carbon credit markets and help the normalisation of the depressed carbon price at present.

## Countries with the largest cumulative carbon emissions 1850-2021

Billions of tonnes of CO<sub>2</sub> from fossil fuels and land-use change



Source: Euronews green, Standard Chartered





# Investor preferences

Standard Chartered's Sustainability Banking Report 2022, which surveyed over 3,000 participants across 10 footprint markets, also illustrates that there is a strong appetite amongst retail and wealthy investors to invest sustainably.

The report approximates that retail clients in the 10 markets can potentially allocate over USD 8tn towards sustainable investments, with 92% of the respondents highlighting favourable stance towards sustainable investments. Climate change, food and water scarcity and pollution and waste management stand out as the key sustainable investment preferences.

In addition to the structural factors discussed in the report, the pullback in Climate related investments and decline in P/E ratios mean that valuations for climate-related theme look attractive over a long-term horizon. Expected earnings improvement as well as strong investor interest are likely to lead to interesting investment opportunities, both in the public as well as private markets for investors over the next 3-5 years.



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