NET-ZERO WILL NEED HUGE INVESTMENT, NEW TECHNOLOGY, SUPPORT FOR DEVELOPING COUNTRIES, AND TO OVERCOME THE BLOCKING TACTICS OF POPULISTS. HOW OPTIMISTIC SHOULD WE BE?

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Relevant Information

This document summarises the key point of one of the round tables held at the Fide Foundation 2nd International Congress at Oxford, on Nationalism, Populism and Identities: Contemporary Challenges. The key topic was the Impact of nationalism and populism at the national level.

Panel chaired by: **Derrick Wyatt QC**, Emeritus Professor of Law at the Faculty of Law, University of Oxford, Emeritus Fellow of St Edmund Hall, Oxford and formerly a member of Brick Court Chambers, London. Member of Fide's International Academic Council.

The panel was comprised of **Gordon L Clark DSc FBA**, Professorial Fellow at St Edmund Hall, Oxford and Director Emeritus Smith School of Enterprise and the Environment, Oxford University. He has held appointments at the Harvard Kennedy School of Government, Harvard Law School, the University of Chicago, Carnegie Mellon University, and Monash University and has been an Andrew Mellon Fellow at the US National Academy of Sciences, **Dr Radhika Khosla**, Associate Professor at the Smith School of Enterprise and Environment, and Research Director of the Oxford India Centre for Sustainable Development at the University of Oxford. She works on examining the productive tensions between urban transitions, energy services consumption and climate change with a focus on developing country cities and **Dr Michael Urban**, Deputy Head of Sustainability Research at Lombard Odier (LO), which is a Swiss Bank specialising in wealth and asset management. He joined LO's Sustainable Investment Research, Strategy and Stewardship (SIRSS) team in 2020. He brings to the panel expertise in the challenges and opportunities of investing in the transition to net-zero.

About the Fide Foundation

The Fide Foundation is a legal-economic think-tank based in Spain, committed to involving the civil society in all major legal and economic developments in Spain, the EU and abroad.

Website: thinkfide.com

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REFLECTIONS ON THE CLIMATE CHANGE PANEL EVENT AT FIDE'S OXFORD CONGRESS

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INTRODUCTION

The Climate Change Panel discussion was the opening event at the Oxford Congress. The panellists were Professor Gordon L Clark, Radhika Khosla, and Michael Urban, and the event was chaired by Professor Derrick Wyatt, QC, a member of Fide's International Academic Council.

Congress participants were briefed in advance by Derrick Wyatt in a document entitled "Net-zero will need huge investment, new technology, support for developing countries, and to overcome the blocking tactics of populists. How optimistic should we be?"

These reflections draw together elements of the briefing document, insights offered by Climate Change Panellists and other participants at the Panel event, and some significant later developments.

KEY POINTS

Governments around the world support the target of net-zero by 2050 and are putting in place the policies to bring it about. Public opinion in most western democracies is supportive. The invasion of Ukraine has pushed energy security up the agenda and many countries around the world are reducing imports of Russian oil and gas. This has meant new investment in domestic sources of fossil fuels as well as in renewables.

Optimists say renewables will be the winners because their price advantage over fossil fuels is increasing, and because technology is providing the means to store electricity generated by wind and solar power so it can be used to fill the gaps in generation when the wind does not blow, and the sun does not shine.

Nobody really knows how much net-zero will cost, nor how much of that cost will be borne by taxpayers, and how much by businesses and private individuals. Pledges by numerous internationally known businesses to achieve net-zero by 2050 suggest that progress is being made by the private sector, but critics argue that most pledges are over optimistic.

Developing countries blame developed countries for historic emissions and look to them to make the greatest contribution to reducing emissions, as well as financing the efforts of developing countries to do the same. Pledges of financial support have been given by developing countries, but they are likely to be inadequate and have yet to be delivered.

Blaming the biggest greenhouse gas emitters of the past for global warming is something of a sideshow because reaching net-zero depends on action by those who are the biggest emitters today. That leaves the USA in the frame, but also brings in China and India as key contributors. Both these countries have made huge strides in the use of solar power, but they have no plans to phase out coal until well after 2050.

The EU's planned response to countries which do not match its own rules on carbon emissions is to impose a carbon tax on imports from those countries. This plan is opposed vigorously by Brazil, Russia, India, China, and South Africa. And there is internal as well as external opposition to the EU tightening its emission standards. Achieving net zero is not guaranteed.

REFLECTIONS ON THE CLIMATE CHANGE PANEL EVENT

The need to achieve net zero is taken seriously in Europe

On the face of it, EU countries are phasing out coal, diligently applying the EU's Emissions Trading Scheme, and moving resolutely in the direction of net-zero.

On top of that, the EU is considering the world's first carbon tax on imports, or "carbon border adjustment mechanism" (CBAM). The proposed tax would be levied on imports of cement, iron and steel, aluminium, fertilisers, and electricity (all big carbon-emitters), at a level equal to EU carbon charges on domestic products under the EU ETS. In calculating the level of the tax, account would take of charges already imposed in the country of origin under schemes equivalent to the EU ETS. The EU claims (probably rightly) that the proposed import tax would be consistent with exception clauses covering health, natural resources and environmental protection in WTO rules and in individual trade agreements with third countries.

The UK, no longer in the EU, seems equally committed to reaching net-zero by 2050.

All this chimes well with the outcome of COP26 in November 2021.

But some European politicians and governments also have reservations, based on the costs of transition, worries about energy security, or climate-change scepticism.

EU plans received a setback on 10 June 2022, when the Commission's "green deal" which aims to update EU legislation and reduce greenhouse gas emissions by at least 55% by 2030, was rejected by a large margin in the European Parliament. Right wing opponents voted against because they thought the proposal went too far, and green opponents voted against because they thought the proposal did not go far enough. This vote also delayed progress on the CBAM.

In Poland, it seems that the plan is to burn coal until 2049, despite an apparent commitment at COP26 to phase out coal in the 2030s. The EU's labelling of natural gas and nuclear power as "green" transition fuels divided the EU, with opposition from Spain, Germany and Austria, and support from Poland and

France. Recent Commission plans for affordable, secure and sustainable energy for Europe make no mention of nuclear power.

The new Czech Government which took office in January 2022 is committed to phase out coal in energy production by 2033 while increasing the country's reliance on nuclear and renewable sources, yet Prime Minister Petr Fiala has questioned the extent to which human action is to blame for climate change.

The impact of the invasion of Ukraine on progress to net zero

And then there is the crisis resulting from Russian aggression against the Ukraine. This has led some countries to prioritise domestic sources of energy even if these risks postponing progress to net zero. Germany for example is considering slowing its transition from coal.

But the Ukraine crisis has boosted investment in renewables as well as in fossil fuels.

An optimistic view is that increased reliance on fossil fuels is short term and transitional and that the invasion of Ukraine could still accelerate progress to net zero in the medium term.

One commentator forecast that "a shift away from Russian natural gas is poised to reinforce the role of wind and solar as the bedrock of future energy."

Nobody really knows how much net zero will cost

Quite apart from the attitude of politicians, nobody really knows what the cost of achieving net-zero is going to be, at national regional or global level. The European Commission estimated in 2020 that reducing the EU's greenhouse gas emissions to 55% of 1990s levels by 2030 would require additional annual investment of €360 billion. Input from public funds at EU and national level will be essential, though many EU countries are already carrying debt burdens traditionally regarded as excessive. Possible solutions could include finance from the EU budget, and relaxation of the EU's Stability and Growth Pact to exclude green investments from its public sector deficit limit.

In the UK the Office for Budget Responsibility estimated in 2021 the public expenditure cost to the UK of reaching net zero by 2050 at £320 billion, or 10 billion per year, but that is on the basis that most of the necessary investment will come from the private sector and individuals.

Governments count on businesses in the private sector playing an important role in transition to net zero. As COP26 got underway in the UK in November 2021, an UK Government Press Release announced that Britain's largest businesses were leading the way in the global transition to net zero emissions, with "over half of FTSE100 companies now committed to eliminating their contribution to climate change by 2050."

European businesses, aware of the benefits of decarbonisation, are increasingly making strong commitments to climate neutrality by 2050, with multinationals such as Volkswagen & IKEA staking their future success on reaching net-zero and adopting clean technologies. Businesses have commercial incentives to adopt green policies to meet the demands of customers who want green products.

However, a recent report by New Climate Institute warns that the claims of businesses cannot always be taken at face value.

"Companies' headline climate pledges require detailed evaluation and in the majority of cases cannot be taken at face value, the report finds. Only one company's net zero pledge was evaluated as having "reasonable integrity"; three with "moderate", ten with "low" and the remaining 12 were rated as having "very low" integrity."

The report found, for example, that the headline pledges of Volkswagen and Ikea, referred to above, were of "low integrity". Not too much reliance can yet be placed on the desire of the private sector to please its green customers.

Transferring climate finance to developing countries

An essential element in the fight against global warming is the transfer of climate finance from developed countries to developing countries. "Climate finance" comprises both funds to facilitate transition to net-zero plus funds for adaptation to global warming. At the 2009 COP in Copenhagen,

developed countries pledged $100 billion annually by 2020. This target has yet to be achieved, but at COP26 confidence was expressed that it would be met by 2023.

The main objective of the COP27 climate conference in Egypt later this year will be to move from pledges that finance will be transferred, to implementation of those pledges.

According to the World Economic Forum, developing countries need to invest an additional $800 billion per year on climate mitigation projects by 2025, dwarfing the $100 million pledges which have been made. The World Economic Forum calls for more input from the private sector, in conjunction with national governments acting as development partners.

Developing countries see developed countries as having greater responsibility for achieving net zero because of their greater historical contribution to climate warming

Climate finance is not the only issue to divide developed and developing countries.

Developing countries see the developed industrialised world as bearing an historic responsibility for climate change that demands a proportionate and so greater contribution to net zero.

On the face of it, developing countries have a point. While the USA is currently responsible for 13% of greenhouse gas emissions, it has contributed 20% of emissions since 1850. China, on the other hand (perhaps controversially still classed as a developing country), while currently contributing 27% of emissions, has only contributed 11% of total emissions since 1850. These figures take into account land use and forestry as well as industrial emissions.

Attributing responsibility for greenhouse gas emissions on a per capita basis creates further complications. New Zealand, Canada and Australia are the three top emitters on this basis, followed by the United States, Argentina, and Qatar. On a per capita basis, China does not even appear in the top 20. Interesting as these figures are, they provide no real assistance in tackling climate change in the present day, where reductions in emissions by New Zealand or Qatar will make little or no difference to achieving net zero, while action by China will be indispensable.

The EU's proposed CBAM (above) is seen by developing countries in a very different way than it is viewed in European capitals. CBAM would treat imports from all countries in the same way, which

developing countries say would be incompatible with the pledge in Article 2(1) of the Paris Agreement that its implementation would reflect "equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances." In other words, developing countries and less developed countries deserve some special treatment when it comes to application of the CBAM. Brazil, Russian, India, China and South African, have all opposed the proposed CBAM on the ground that it is discriminatory.

The routes planned by some countries to net-zero seem over-optimistic

The Government of Japan, despite its COP26 commitments, is seriously concerned about energy security and appears to be back-peddling. Even before the invasion of Ukraine forced energy security up the political agenda, Japanese officials had been quietly urging trading houses, refiners and utilities to slow down their move away from fossil fuels, and encouraging new investments in oil-and-gas projects (Japan is responsible for 2% of world greenhouse gas emissions).

In a survey of public concern about the effects of global warming polled in spring 2021 in 17 advanced economies (across North America, Europe, and Asia-Pacific), concern had risen significantly since 2015 in all the countries except Japan, where concern had declined significantly. Only days before the opening of COP26, the Prime Minister of Japan apologised for the comments of a former Prime Minister, campaigning on behalf of the governing Liberal Democratic Party, who had said there were some advantages to be gained from global warming.

In Europe, as elsewhere, climate change scepticism and denial has tended to soften and morph into criticism of net-zero policies on grounds of cost and impact on living standards. Messaging becomes complex, mixing calls for energy independence with questions about the precise extent (rather than the existence of) human action on global warming, and accusations that the press and politicians are exaggerating the risks from global warming.

One summary of this softening is "climate change may be happening, but it's no big deal….We don't need to make any drastic changes, like curbing fossil fuels."

The IPCC's Sixth Report predicts increasing damage as a result of global warming

Meanwhile the evidence is building that man-made global warming will inflict more severe extreme weather events on mankind than would otherwise be the case. The first instalment of the sixth report of the IPCC, released in the run-up to COP26, records that it is an "established fact" that human-caused emissions of greenhouse gases "have led to an increased frequency and/or intensity of some weather and climate extremes".

It predicts, for example, that the frequency of lower intensity hurricanes is likely to decline, but that the potential of hurricanes to inflict damage over the land territory of the USA is likely to increase and that the cause is more likely than not human influences on the climate. It finds that it is 80% likely that human influences on the climate contributed to extreme rainfall amounts during Hurricane Harvey and other intense hurricanes. And it finds it 90% likely that co-occurrent heat waves and droughts will continue to increase under higher levels of global warming.

The report also notes that climate change made Europe's record-breaking heatwave in 2019 (which saw the UK's highest-recorded temperature ever) as much as 100-times more likely.

Differentiated paths to net zero

Net-zero is a rational option for national policymakers, both to combat climate change, and as a declaration of energy independence from unreliable foreign suppliers, such as Putin's Russia, which provides natural gas to Europe, including the UK.

The Paris Agreement allows national governments some leeway to design their own commitments to achieve net-zero, and since it also provides for differentiated pathways for less developed countries, which includes China and India.

China (27% of world greenhouse gas emissions) plans to "phase down" coal and be carbon neutral by 2060. It is interesting that proven coal reserves in China are estimated to run out about 2055. China, which already supplies three-quarters of the world's solar panels, has the ambition to be the world's leader in solar power. China may yet become the world's loudest cheerleader for net-zero.

Achieving net-zero by 2050 seems unlikely but renewables are getting cheaper all the time

Flexibility means that there will be problems with the timing of net- zero. India endorsed the IPCC's 6th Report, referred to above, but its delegate at COP26 described it as "too gloomy". India, with 7% of global greenhouse gas emissions, has made it clear it plans on burning coal until 2070. Deadlines and warming limits may well be missed.

But renewable sources of energy are increasingly competitive. Energy from new renewables is cheaper than energy from new fossil fuel generation for nearly half the world's population.

In 2020 the UK Government forecast that onshore wind and solar power would be half as costly as gas in 2025, but already by mid-2021 new onshore wind power was costing less than half that from existing gas plants. Major drivers of innovation and reduced costs have been the Kyoto and Paris Agreements and the political decisions and regulation to which they have given rise.

It is true that renewables in the form of solar and wind power need alternative energy backup to cover dull and windless days, until there have been large strides in battery technology – either through factory size lithium-ion storage or technology beyond lithium-ion, of various kinds. But the increasing competitiveness of renewables is nevertheless game-changingly significant, and the technology of electricity storage is developing all the time.

Achieving net-zero is not yet guaranteed

Public opinion in the UK is receptive to the need to combat climate change, and the same seems to be true in advanced economies around the world. In Australia a climate-sceptic government was replaced in May 2022 by one committed to achieving net zero. But willingness to accept mandated lifestyle changes or impacts on living standards has yet to be tested. If the public feel worse off and blame national policies designed to reach net-zero, there could be a backlash, and climate-sceptics will offer what may sound to some people like common-sense excuses for not regarding the climate emergency as such an emergency after all. Achieving net-zero is not yet guaranteed.

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PANEL MEMBERS

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CONTEMPORARY CHALLENGES

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