

Climate Pulse

Climate change risks and opportunities

By Mamadou-Abou Sarr



The heat

Renewables: are we ready for prime time, at last?

The war in Ukraine has been disrupting global energy supplies, therefore increasing the focus on energy security. But where does this leave the commitments global leaders made at the Paris Climate Agreement, to limit temperate rises to well below 2°C compared with pre-industrial times?

There is a concern that, with geopolitical issues dominating the headlines, climate goals could be shunted onto the backburner.

While the overarching goal of hitting net zero carbon emissions by 2050 can give the impression that climate change is a long-term problem, in reality, urgent action is required in the short-term if these targets are to be met.

And, to date, progress in one of the most important aspects of addressing climate change – decarbonising our sources of energy – has been painfully slow.

It seems we have been calling for renewables to replace fossil fuels for decades. Yet the figures point to a lack of meaningful action. In 2019, about 11.2%¹ of the energy consumed globally for heating, power, and

transportation came from modern renewables (i.e., biomass, geothermal, solar, hydro, wind and biofuels). That is up from 8.7% a decade previously.

Fossil fuels' share of the energy mix was roughly flat during the same period. Taking into account growing energy demand, that's an increase in output.

To put it simply, we need renewables to be greater than 11% of the energy mix if we are to combat climate change.

I see three major hurdles for the mass adoption of renewables:

1. Capital costs are still too high for renewables to be seen as a legitimate alternative by many. People will always choose the option that costs less today.
2. There is a lack of infrastructure to facilitate the mass roll-out of renewables. We need energy storage to deal with the intermittent supply associated with technologies such as wind and solar, and a grid capable of transporting this supply.
3. A level global playing field is needed. Renewables investors grapple with a lack of harmonisation in regulation, which hinders progress.

As well as proven technologies like wind and solar, we need other technologies that are still emerging – like carbon sequestration and hydrogen – and others that are not yet discovered. There's a need for capital investment to help achieve breakthrough technologies.

To really help the renewables sector to shift gear, greater public-private partnership is required. Of course, the private sector will be the main source of capital, however better coordination with the public sector is key.

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The history of the solar sector is littered with failures. The public and private sectors must work in tandem to instill investor confidence.

Our discussions around renewables also need to be realistic. We need a programmatic transition. That means accepting that different countries will develop at different speeds. In certain developing economies, renewables are not yet ready for to replace traditional sources of energy overnight mostly due to competing priorities, lack of infrastructures, land filling and waste management concerns.

Conversely, in other countries such as Norway, Brazil, and New Zealand, hydro power, biofuels and waste, wind and solar represent a substantial percentage of their total supply (respectively 45%, 32.1% and 25%²). The increased private investment in renewables plants and the associated infrastructure they require should be maintained, accelerated, and accompanied by the right policies and incentives from the public sector. This is the path to power up the renewables sector.

¹Source: Center for Climate and Energy Solutions. <https://www.c2es.org>

²Source: International Energy Agency



Solar PV

Photovoltaic (PV) solar cells generate electricity from photons in the sun's rays.

PV panels consist of cells made of a semiconducting material. When photons strike the material, they release electrons, creating an electric current.

This current is captured in the form of direct current (DC) electricity. An inverter converts this DC electricity into alternating current (AC) that can then power appliances or can be fed into the grid.

Contrary to popular belief, modern solar panels do not require direct

sunlight to properly function, although they can produce more electricity on bright, sunny days.

The pulse

Equity Indexes

As of 06/30/22	Performance (Net total return)					As of 06/30/22	Risk (Annualized Standard Deviation)			
	Year to date	3 Year	5 Year	10 Year	Since Nov 29 2013 (Annualized)		3 Year	5 Year	10 Year	Since Nov 29 2013 (Annualized)
MSCI WORLD	-7.69%	14.44%	12.05%	10.73%	9.56%	MSCI WORLD	17.51%	15.36%	13.29%	13.71%
MSCI WORLD CLIMATE CHANGE	-9.52%	16.09%	13.18%		10.57%	MSCI WORLD CLIMATE CHANGE	17.71%	15.51%		13.81%
MSCI WORLD LOW CARBON LEADERS	-7.88%	14.65%	12.17%	11.04%	9.68%	MSCI WORLD LOW CARBON LEADERS	17.60%	15.44%	13.39%	13.79%
MSCI WORLD CLIMATE PARIS ALIGNED	-9.43%	15.00%	12.77%		10.70%	MSCI WORLD CLIMATE PARIS ALIGNED	17.64%	15.36%		13.70%
MSCI EM (EMERGING MARKETS)	-4.83%	6.04%	6.99%	3.24%	4.07%	MSCI EM (EMERGING MARKETS)	18.21%	16.59%	15.96%	16.33%
MSCI EM (EMERGING MARKETS) CLIMATE CHANGE	-5.67%	6.32%	7.23%		4.62%	MSCI EM (EMERGING MARKETS) CLIMATE CHANGE	18.06%	16.64%		16.28%
MSCI EM LOW CARBON LEADERS	-4.76%	5.17%	6.47%	3.09%	3.68%	MSCI EM LOW CARBON LEADERS	17.73%	16.30%	15.75%	16.11%
MSCI EM CLIMATE PARIS ALIGNED	-5.74%	7.45%	7.58%		4.46%	MSCI EM CLIMATE PARIS ALIGNED	18.46%	16.84%		16.41%
SOLACTIVE GBS DEVELOPED MARKETS LARGE & MID CAP INDEX	-7.72%	14.35%	12.00%	10.68%	9.55%	SOLACTIVE GBS DEVELOPED MARKETS LARGE & MID CAP INDEX	18.76%	15.89%	13.81%	14.27%
SOLACTIVE ISS ESG DEVELOPED MARKETS PARIS-ALIGNED BENCHMARK INDEX	-8.91%	13.86%	11.92%			SOLACTIVE ISS ESG DEVELOPED MARKETS PARIS-ALIGNED BENCHMARK INDEX	17.79%	15.08%		
SOLACTIVE ISS ESG DEVELOPED MARKETS CLIMATE TRANSITION BENCHMARK INDEX	-8.35%	13.68%	11.75%			SOLACTIVE ISS ESG DEVELOPED MARKETS CLIMATE TRANSITION BENCHMARK INDEX	18.08%	15.28%		

Fixed-Income Indexes

As of 06/30/22	Performance (Net total return)					As of 06/30/22	Risk (Annualized Standard Deviation)			
	Year to date	3 Year	5 Year	10 Year	Since Nov 29 2013 (Annualized)		3 Year	5 Year	10 Year	Since Nov 29 2013 (Annualized)
MSCI USD HY CORPORATE BOND	-4.19%	4.84%	4.13%	5.27%	4.00%	MSCI USD HY CORPORATE BOND	9.95%	8.10%	6.86%	8.51%
MSCI USD HY CLIMATE CHANGE CORPORATE BOND	-4.40%	4.37%			4.00%	MSCI USD HY CLIMATE CHANGE CORPORATE BOND	7.74%			6.77%
MSCI USD IG CORPORATE BOND	-5.20%	4.71%	3.77%	3.70%	3.37%	MSCI USD IG CORPORATE BOND	6.81%	5.63%	4.84%	5.91%
MSCI USD IG CLIMATE CHANGE	-5.17%	4.67%	3.77%		3.36%	MSCI USD IG CLIMATE CHANGE	6.35%	5.28%		5.54%

Source: MSCI Inc - <https://www.msci.com/>
 ISS ESG - <https://www.issgovernance.com/esg/ratings/>
 Solactive AG - <https://www.solactive.com/indices/>

Climate Pulse

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