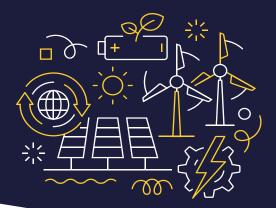


For professional investors only



Responsible investment: themes to look out for in 2022

RI Research and Stewardship Team

Responsible investment issues tend to have a long time horizon. However, we have identified key issues and opportunities we expect will drive change in the coming year.

Energy transition

This is a critical decade for accelerating clean energy transitions and putting emissions into structural decline. We expect to see the following in the coming year:

- New renewable additions to continue to outstrip new fossil additions in terms of gigawatt in 2022. Central expectations are for around 300GW of capacity additions in 2022 up from just under 290GW in 2021.¹
- Solar will continue to dominate: supportive policies and maturing technologies are enabling cheap access to capital in leading markets. Solar is consistently cheaper versus new fossil fuel plants in most countries.

- Wires will be critical to the transition as capacity increases. The projected requirement for new transmission and distribution lines worldwide is 80% greater over the next decade than the expansion seen over the last.²
 However, high energy bills will test governments' abilities to finance such projects.
- **Battery storage is key.** Since 2010, in real terms battery prices have fallen by almost 90%. However, supply chain issues mean 2022 could be the first year prices increase.



Your success. Our priority.



- Shutting fossil plants is not the only answer to the emissions problem. Governments can prioritise low carbon energy sources over fossil fuels without plant closures. This enables more renewable capacity to replace fossil when renewable generation rates are high, thereby reducing fossil fuel plants' load factors and reducing emissions.
- A continued commodities boom will test oil majors' green commitments, although higher fossil prices will make renewable alternatives even more cost competitive. Reducing fossil demand needs to be tackled credibly if we are to avoid energy price spikes driven by supply and demand imbalances – the road to net zero will be bumpy.

Green mobility

The outlook for green mobility is characterised by rapidly growing interest in hydrogen, low-/zero-emission vehicles and charging infrastructure. We expect to see:

- The hydrogen ecosystem expand meaningfully Momentum will continue to build particularly on the policy and technology side and will include the pipeline of global electrolyser shipments to exceed 2GW in 2022; more country hydrogen strategies; and further emergence of new methods to create green hydrogen, such as waste-to-hydrogen and methane pyrolosis.
- Sustainable Aviation Fuel (SAF) In 2021, nine airlines committed to set science-based targets (SBTs) to meet pledged net-zero ambitions. In 2022 we will likely see at least a further 10 commit to these targets. This will increase demand for SAF. Cost will be a headwind for demand but should continue to decline amid increased uptake and potential taxation of existing aviation fuel.
- Rapid growth of charging infrastructure to support EV adoption driven by accelerating demand for consumer and commercial EVs.

Corporate governance

The last two decades have seen lurching changes in how corporate boards operate. But it is now not enough for directors to ask tough questions; they also need expertise. We expect:

- A new set of demands from investors and stakeholders will call for climate, technology and human capital experience in addition to gender and ethnic/racial diversity.
- Traditional models of "generalist directors" will diminish and be supplanted by "specialist directors" with strategic or technical sustainability expertise.
- "Specialist directors" will require non-traditional candidates.
- **ESG** (environmental, social and governance) activism will be a driver for change; investor and stakeholder engagement will ratchet.

Responsible investment policy: rights, rules and rows

In a pandemic which has stoked existing inequality, it is no surprise attention is focusing on society. We expect investments to be influenced more strongly by actions in the following areas:

- Human Rights will increasingly shape investment outcomes. While a legally binding global treaty governing business and human rights remains distant, national and supra-national regulation is gaining teeth. National legislation such as Germany's Supply Chain Act will demand more of investors and investees, requiring appropriate human rights due diligence and remedy.
- Rules adopted by the US Securities and Exchange Commission (SEC) in December 2021 can now see China-based issuers delisted within three years. Identification of non-compliance may be costly.



Polarisation is likely to continue over climate and energy security, inequality and common prosperity. The energy sector may soon be the most exciting as corporates such as Woodside turn towards hydrogen and carbon capture. Between the net-zero imperative and Ukraine, the future of nuclear is likely brighter than expected. As the cost of coronavirus emerges, expect social policy to guide markets from China to Chile.

Nature loss

2022 will see increased focus on nature loss, both as a systemic environmental risk, and as a theme with interdependencies with other climate and sustainability topics.

- Policy: The UN Biodiversity Conference COP15 aims to "put biodiversity on a path to recovery by 2030" moving toward regeneration by 2050. Proposals make the goal more tangible: preserving 30% of land and sea area, reducing pesticide and fertiliser pollution, eliminating plastic pollution, and achieving sustainable agriculture, forestry and fisheries.
- Agreed metrics: This year the Taskforce for Nature-related Financial Disclosures (TNFD) releases a framework for corporates and investors, the EU Taxonomy shifts focus to biodiversity, and the EU releases a disclosure framework, all of which may pave the way to a more common understanding of nature risks.
- Companies respond: While many companies' responses are nascent, some are beginning to improve analysis of impacts and risks, or developing "nature positive" initiatives.
- Recognition of feedback loops there is a growing understanding that neither climate change or nature loss can be approached in a silo; the two themes are interdependent.

Climate change & carbon

We expect meaningful climate legislation announced by governments in 2021 to take shape, targeting specific industries key to decarbonisation goals, as well as tax incentives for clean technologies. Mandatory climate disclosure will also be at the forefront as the EU implements the Sustainable Finance Disclosure Regulation and the SEC takes action.

The implementation of the reforms of the EU Emissions Trading System (ETS) will continue to tighten the carbon market and push prices towards €100, which will make investments in technologies such as carbon capture and storage and hydrogen increasingly economical. This could accelerate progress in tech developments as well as investments in key decarbonisation technologies. Following COP26, greater focus on net zero will translate into higher scrutiny on corporate net-zero strategies, particularly on the decarbonisation of the supply chains. Companies with unclear/inadequate net-zero plans will be exposed to reputational risk, including climate litigation risk.

We will cover all these topics and more in greater depth throughout 2022 as we continue to analyse, explore and weigh-up the themes that will drive markets and investment opportunities in the future.





Important Information:

For use by professional clients and/or equivalent investor types in your jurisdiction (not to be used with or passed on to retail clients). This is an advertising document.

This document is intended for informational purposes only and should not be considered representative of any particular investment. This should not be considered an offer or solicitation to buy or sell any securities or other financial instruments, or to provide investment advice or services. Investing involves risk including the risk of loss of principal. Your capital is a trisk. Market risk may affect a single issuer, sector of the economy, industry or the market as a whole. The value of investments is not guaranteed, and therefore an investor may not get back the amount invested. International investing involves certain risks and volatility due to potential political, economic or currency fluctuations and different financial and accounting standards. The securities included herein are for illustrative purposes only and should not be construed as a recommendation to buy or sell. Securities discussed may or may not prove profitable. The views expressed are as of the date given, may change as market or other conditions change and may differ from views expressed. This information is not intended to provide investment for its own account or on behalf of clients, may not necessarily reflect the views expressed. This information is not intended to provide investment advice and does not take into consideration individual investor circumstances. Investment decisions should always be made based on an investor's specific financial needs, objectives, goals, time horizon and risk tolerance. Asset classes described may not be suitable for all investors. Past performance does not guarantee future results, and no forecast should be considered a guarantee either. Information and opinions provided by third parties have been obtained from sources believed to be reliable, but accuracy and completeness cannot be guaranteed. This document and its contents have not been reviewed by any regulatory authority.

In Australia: Issued by Threadneedle Investments Singapore (Pte.) Limited ["TIS"], ARBN 600 027 414. TIS is exempt from the requirement to hold an Australian financial services licence under the Corporations Act and relies on Class Order 03/1102 in marketing and providing financial services to Australian wholesale clients as defined in Section 761G of the Corporations Act 2001. TIS is regulated in Singapore (Registration number: 201101559W) by the Monetary Authority of Singapore under the Securities and Futures Act (Chapter 289), which differ from Australian laws.

In Singapore: Issued by Threadneedle Investments Singapore (Pte.) Limited, 3 Killiney Road, #07-07, Winsland House 1, Singapore 239519, which is regulated in Singapore by the Monetary Authority of Singapore under the Securities and Futures Act (Chapter 289). Registration number: 201101559W. This document has not been reviewed by the Monetary Authority of Singapore.

In Japan: Issued by Columbia Threadneedle Investments Japan Co., Ltd. Financial Instruments Business Operator, The Director-General of Kanto Local Finance Bureau (FIBO) No.3281, and a member of Japan Investment Advisers Association.

In Hong Kong: Issued by Threadneedle Portfolio Services Hong Kong Limited 天利投資管理香港有限公司. Unit 3004, Two Exchange Square, 8 Connaught Place, Hong Kong, which is licensed by the Securities and Futures Commission ("SFC") to conduct Type 1 regulated activities (CE:AQA779). Registered in Hong Kong under the Companies Ordinance (Chapter 622), No. 1173058.

In the UK: Issued by Threadneedle Asset Management Limited, registered in England and Wales, No. 573204. Registered Office: Cannon Place, 78 Cannon Street, London EC4N 6AG. Authorised and regulated in the UK by the Financial Conduct Authority.

In the EEA: Issued by Threadneedle Management Luxembourg S.A. Registered with the Registre de Commerce et des Sociétés (Luxembourg), Registered No. B 110242 44, rue de la Vallée, L-2661 Luxembourg, Grand Duchy of Luxembourg.

In the Middle East: this document is distributed by Columbia Threadneedle Investments (ME) Limited, which is regulated by the Dubai Financial Services Authority (DFSA). This document is intended to provide distributors with information about Group products and services and is not for further distribution. The information in this document is not intended as financial advice and is only intended for persons with appropriate investment knowledge and who meet the regulatory criteria to be classified as a Professional Client or Market Counterparty and no other Person should act upon it.

In Switzerland: Threadneedle Asset Management Limited. Registered in England and Wales, Registered No. 573204, Cannon Place, 78 Cannon Street, London EC4N 6AG, United Kingdom. Authorised and regulated in the UK by the Financial Conduct Authority. Issued by Threadneedle Portfolio Services AG, Registered address: Claridenstrasse 41, 8002 Zurich, Switzerland.

Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies. columbiathreadneedle.com