Information for investment professionals

Identifying key sustainable themes for 2023 and beyond

Global equities | March 2023

Pauline Grange
Portfolio Manager

- **The desire for energy security coupled with decarbonisation means there is now a sense of urgency around a green transition**
- **Despite supply issues, EVs continued to grow their share of sales in 2022, and now account for 14% of all global new vehicle sales**
- **Technology and sustainability are also intertwined, with technology playing a pivotal role in helping companies achieve their environmental targets**

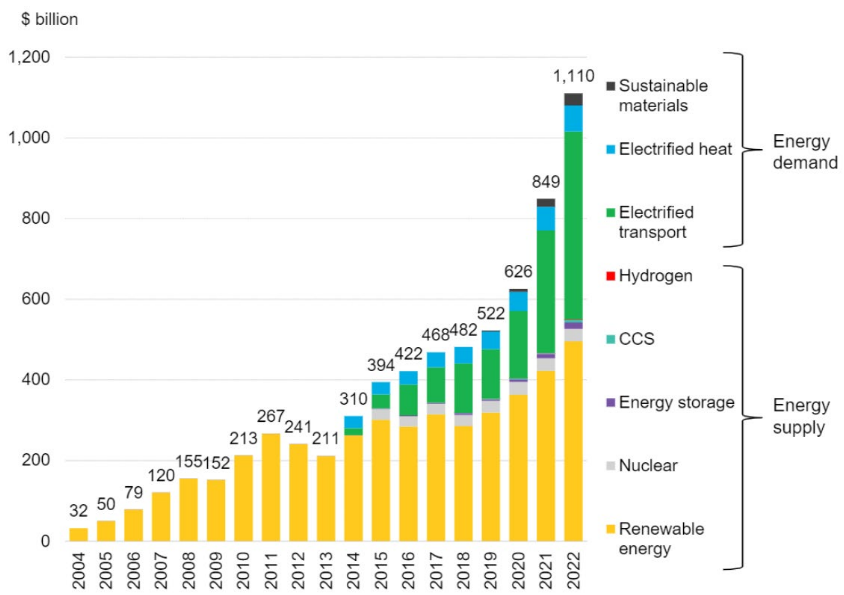
2022 has been a pivotal year for markets. With the era of ultra-low inflation and interest rates arguably behind us, so too is the era of a market dominated by "Big Tech". Sustainability and digitisation now permeate all parts of the economy, not just the Technology sector, which combined with structurally higher inflation offers structural growth opportunities across the broader market.

Although macro trends currently dominate markets, we believe we can deliver strong long-term returns to investors by identifying where the biggest changes are happening. Here we explore some of our key sustainable themes for 2023 and beyond.

Energy security + decarbonisation = a powerful green transition force

The recent energy crisis has added a sense of urgency to the green transition. Despite headwinds from rising interest rates and supply chain bottlenecks, global energy transition investment – in both green power and electrification of energy demand – reached $1.1 trillion in 2022 (Figure 1). This was a 31% year-on-year rise and was the first time it has matched fossil fuel investment.

Figure 1: global investment in energy transition by sector



Source: BloombergNEF, January 2023. Note: start-years differ by sector but all sectors are present from 2019 onwards; nuclear figures start in 2015.

It's still early days, however, as green investment needs to average more than three times this level for the rest of the decade to be on track for a global net zero world.[1]

Global energy policies introduced in 2022 focus not just on decarbonisation but also energy security, such as Europe's RePowerEU plan[2] and America's Inflation Reduction Act[3] (IRA).

China, through its outsized investments over the past decade, dominates the world's renewable and electric vehicle (EV) supply chains. In 2022 it accounted for $546 billion of $1.1 trillion of global energy transition investment[4]. The IRA is America's response to this. The Act includes a package of financial incentives and tax credits to localise clean technology manufacturing, including renewable energy, green hydrogen, carbon capture and storage, and electric vehicles. However, Europe is concerned that the IRA will divert green capital investment to the US enabling it to leapfrog Europe in the race to be green. As such we expect Europe to introduce similar incentives.

These policies include stronger financial incentives alongside targets to reduce regulatory hurdles which have hampered clean energy deployment to date. These will accelerate the implementation of wind, solar and green hydrogen projects.

The energy crisis has highlighted the importance of cheap, reliable energy. Sadly, the reality is that current storage technology limitations mean we cannot yet transition to an energy grid powered by 100% renewables without risking blackouts. Consequently, there is an increasing acceptance of the role nuclear power must play in enabling a low carbon, reliable energy grid.

---

[1] BloombergNEF, Energy Transition investment trends 2023, January 2023

[2] https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3131

[3] https://www.energy.gov/lpo/inflation-reduction-act-2022

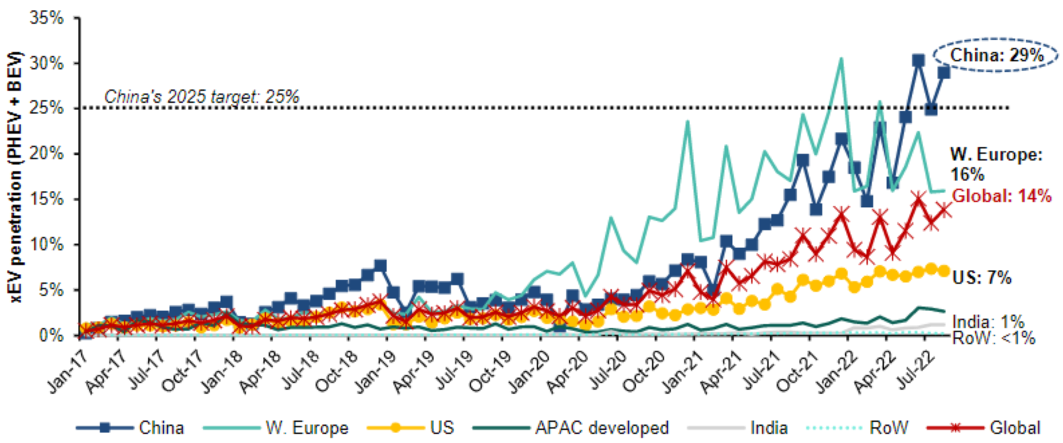
[4] Yale Environment 360, Clean energy saw as much investment as fossil fuels for the first time in 2022, 27 January 2023

Goldman Sachs forecasts that the combination of American and European green policies could mobilise nearly €6 trillion of capital into clean energy over the next decade[5]. We believe such an occurrence will drive a capital investment super-cycle for renewable power and the infrastructure needed to electrify our economies.

Global EV adoption increases

EVs have proven to be a disruptive technology that has injected growth into an ex-growth sector. Despite shortages in EV supply over 2022 they continued to grow their share of new vehicle sales. In fact, EVs have gone from about 1% of global new vehicle sales in 2016 to approximately 14% in 2022, with China again leading adoption[6].

Figure 2: China's EV penetration hit about 30% in 2022 with 7 out of 10 EVs sold there



Source: IEA, SNE Research, Bernstein Analysis, May 2022

After being a laggard in EV adoption to-date, the US is expected to see demand accelerate in 2023 as EV subsidies introduced by the IRA start to take effect. With competition rising, manufacturers have started to cut prices: Tesla slashed its prices as much as 20% in January while Ford and General Motors also lowered their prices to make them eligible for the federal tax credit[7]. Alongside the entry of cheaper Chinese vehicles into western markets, the total cost of owning an EV can start to approach that of internal combustion engine vehicles, a key trigger for their mass adoption. Indeed, given falling costs, greater model choice, improved battery range and policy support, the International Energy Agency (IEA) has said that by the end of this decade EVs will represent more than 60% of all vehicles sold[8] – a prediction which no longer looks overly optimistic.

---

[5] Goldman Sachs, The $6 Trillion Plan: Unleashing New Waves of Green Investment, 9 May 2022

[6] IEA, SNE Research, Bernstein Analysis, May 2022

[7] Reuters, Tesla turns up heat on rivals with global price cuts, 13 January 2023

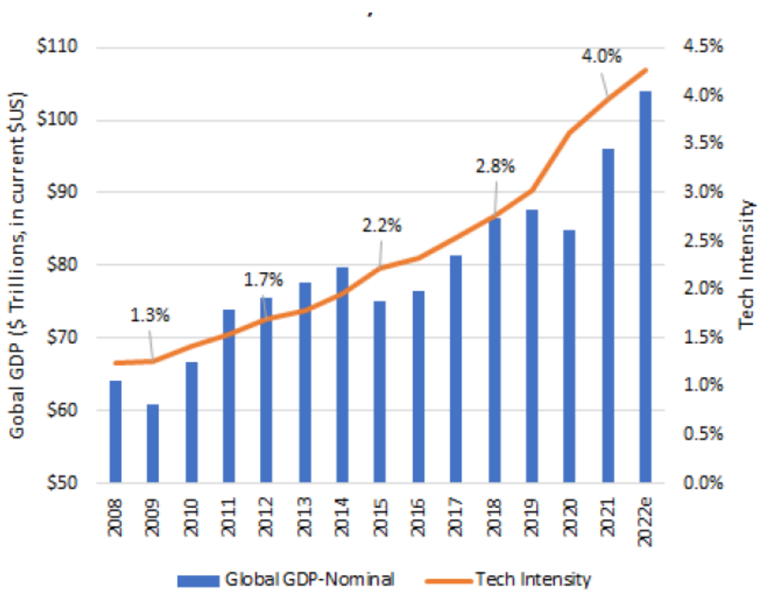
[8] https://www.iea.org/reports/by-2030-evs-represent-more-than-60-of-vehicles-sold-globally-and-require-an-adequate-surge-in-chargers-installed-in-buildings

Technology and automation – key to solving the world's challenges

Globalisation has been significantly deflationary in recent decades, as the world exported production to countries where access to cheaper labour and inputs made it less expensive to produce goods. However, political pressure has grown to reshore supply chains in response to rising geopolitical tensions and Covid-19 related disruptions. The problem is that this reshoring comes as western economies are facing labour shortages and stagnating productivity, which may negatively impact corporate profits. To address these challenges we believe more companies across all verticals will turn to technology and automation to promote greater productivity. Artificial intelligence is already being adopted to help optimise business processes.

"Intensity" is a way to quantify this growing impact of technology. We have already seen technology intensity growing as a percentage of global GDP. Although there has been a digestion period following the boost to digital adoption during the pandemic, we believe the structural trend of rising technology intensity across the broader economy will continue.

Figure 3: the technological 'intensity' of Global GDP (base index for technology stocks: R1000)



Source: World Bank, Compustat, Gartner historical, Columbia Threadneedle as at 12 February 2022

Technology and sustainability are also intertwined, with technology playing a pivotal role in helping companies achieve their environmental targets through promoting resource efficiencies. We find technology companies that are providing infrastructure to support this digital transformation including cloud companies (Microsoft and Equinix) and semiconductor companies (ASML, TSMC and Nvidia) very interesting, as well as design software companies such as Trimble and Autodesk that provide digital solutions for traditional sectors like construction and agriculture.[9]

[9] The mention of specific companies should not be taken as a recommendation to deal

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). For marketing purposes.
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 at risk. 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, subject to change 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 by other Columbia Threadneedle Investments (Columbia Threadneedle) associates or affiliates. Actual investments or investment decisions made by Columbia Threadneedle and its affiliates, whether 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 2001 (Cth) and relies on Class Order 03/1102 in respect of the financial services it provides to wholesale clients in Australia. This document should only be distributed in Australia to "wholesale clients" as defined in Section 761G of the Corporations Act. 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 advertisement has not been reviewed by the Monetary Authority of Singapore.
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 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 and Type II Financial Instruments Firms Association.
In the UK: Issued by Threadneedle Asset Management Limited, No. 573204 and/or Columbia Threadneedle Management Limited, No. 517895, both registered in England and Wales and authorised and regulated in the UK by the Financial Conduct Authority.