WISDOMTREE THEMATICS OUTLOOK - THE FUTURE IS GREEN AND HIGHLY CONNECTED. AND IT STARTS NOW.

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"We tell ourselves stories in order to live", Joan Didion (writer and journalist).

Thematic investing brings this notion to the fore. Avenues of investing aligned with megatrends are inherently predicated on visions of the future. But what makes thematic investing a lot more palatable than prophesising is that certain megatrends are already in motion. Thematic investors, therefore, need only observe the direction of the current and swim with the tide. The stories they tell themselves reveal what places they will witness along the way.

But, of course, timing does matter and the bear market in 2022 has created an attractive entry point for long-term investors. Moreover, the investment industry now offers discerning investors ways to access differentiated themes aligned with unique megatrends.

For investors, this means more stories to choose from and two themes appear especially interesting at the present juncture.

The future is green - the inevitable energy transition

Following 18 months of intense wrangling, the US has passed a \$700 billion economic package deemed by many as a monumental step in tackling climate change. The bill includes \$369 billion for climate action including tax credits for households to buy electric vehicles and support for renewable energy, carbon sequestration research, hydrogen power, and small-scale nuclear reactors¹.

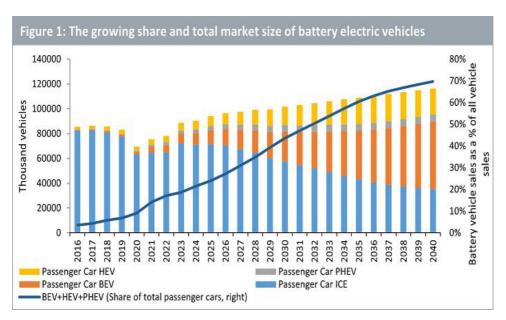
Creating an energy sector that is both sustainable and sufficient will require major investment across all forms of clean energy including renewables, hydrogen, biofuels, hydro, and even nuclear. Most recently, the European parliament has moved to classify future investment in natural gas and, more notably, nuclear power as environmentally sustainable (under certain conditions) in a pivotal shift recognising the need for an 'all of the above' approach to phasing out fossil fuels.

Low hanging fruit

The energy sector accounts for around three quarters of global greenhouse gas emissions with road transportation accounting for the largest share at $11.9\%^2$. It therefore makes sense to start where most progress can be made and can have the greatest impact.



According to Bloomberg New Energy Finance's Long Term Electric Vehicle (EV) Outlook 2022, the EV market represents an \$82 trillion market opportunity between now and 2050 in a net zero scenario. This is on account of not just the vehicles but the ecosystem of industries surrounding them, which includes battery technology, commodities, charging infrastructure, and recycling to name a few. With EV sales on an exponential trajectory already (see Figure 1), such forecasts do not seem implausible.



Source: WisdomTree, Wood Mackenzie, forecasts from 2021. ICE = Internal Combustion Vehicle, BEV = Battery Electric Vehicle, PHEV = Plug-in Hybrid Electric Vehicle, HEV = Hybrid Electric Vehicle, PC = Passenger Cars.

Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.

No half measures

The electrification of road transportation could create a 27% increase in electricity demand by 2050^3 . It is therefore crucial that the electricity itself is also clean.

Among renewables, offshore wind is all the rage right now - and for good reason. According to Wood Mackenzie, almost \$1 trillion is expected to flow into the offshore wind market over the next decade, given its scalability.

But more renewable power will also require more energy storage. Battery technology again comes into play. Lithium-ion batteries, effective for shorter duration storage, will be complemented by emerging longer duration storage technologies. This will ensure the energy supply is not only reliable for a few hours, but days and weeks.

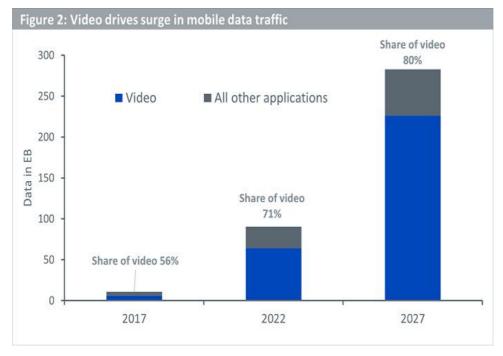
The future is highly connected - the ongoing digital transition

According to Statista, the number of internet of things (IoT) connected devices worldwide rose from 8.6 billion in 2019 to 11.3 billion in 2021 and will likely reach 29.4 billion by 2030^4 . The world is becoming increasingly connected, and there are many facets to it.



Every cloud has a silver lining

The world has shifted quickly from renting cassettes and DVDs to cloud-based streaming services which use artificial intelligence to offer a personalised experience. Video streaming is not just occupying our television screens. It dominates our mobile phone usage as well. According to Ericsson, global mobile data traffic has risen from 10.9 exabytes (EB) in 2017 to 90.4 EB in 2022 and expected to reach 282.8 EB by 2027 with video being the primary driver of this data binging (see Figure 2 below).



Source: Ericsson Mobility Report 2022. Note: One exabyte equals one million terabytes.

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Gartner forecasts that public cloud end user spending will grow by 20.4% in 2022 to 494.7 billion, up from 410.0 billion in 2021. This number will reach nearly \$600 billion in 2023⁵. Now, for end users sitting in their homes streaming content, movies, and TV shows, everything may be in the 'cloud'. But for YouTube, Netflix, and Spotify this data needs to be physically stored somewhere. The explosion in data usage will require more data centres and ever-increasing internet speeds. For investors looking at cloud computing as a megatrend, the opportunity is not just in the software, but also the real estate that provides the necessary infrastructure.

This megatrend is not optional

If a business hastens to shift to the cloud, collect all the necessary user data to improve its service, but then bungles it all up by falling victim to a cyber-attack, the result could be catastrophic. More connectedness means more points of vulnerability for the nefarious types to exploit. Cybersecurity Ventures expect global annual cybercrime costs to reach \$10.5 trillion by 2025, up from \$3 trillion in 2015.

As a consumer of any product or service, cybersecurity is something you never want to hear about. If everything is in order, nothing happens. But that is only possible if



businesses ensure robust guardrails are in place. Cybersecurity, therefore, is a megatrend that is not optional, but mandatory. It is what makes a connected world sustainably possible.

But what about the risks?

Yes, further hawkishness from central banks could create more turbulence. Nevertheless, monetary policy shouldn't alter the direction of travel. So, keep an eye on those inflation prints and the response from central banks.

Deglobalisation can also pose a challenge, especially for the energy transition which depends on certain commodities. Supply chains span across the globe and a coordinated effort to tackle climate change would be more fruitful than a fragmented one.

Conclusion

The protagonists will change, the antagonists will change, and there will be unforeseen twists and turns. And for each investor, the plot may thicken somewhat differently. But the stories are underway. And now is an excellent time for investors to not only observe that the world is becoming greener and more connected but help drive the change they want to see.

Sources

- ¹ Source: Financial Times 8 August 2022.
- ² Our World in Data based on 2020 figures.
- ³ Bloomberg New Energy Finance Long Term Electric Vehicle Outlook 2022.
- ⁴ Source: Statista in cooperation with Transforma Insights, May 2022.
- ⁵ Source: Gartner April 2022.

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