



BROWN SHIPLEY
A QUINTET PRIVATE BANK

CIRCULAR ECONOMY

A PATH TO LESS WASTE AND ATTRACTIVE GROWTH



THEMATIC INVESTING

INTRODUCTION

The circular economy is a transformative shift from the traditional "take-make-waste" linear model to a regenerative system that emphasises reusing, recycling, and minimising waste.

Environmental regulations mean companies are increasingly adopting sustainable practices, pledging to achieve net-zero emissions and reduce waste through circular principles and consumers alike.

Cost inflation, labour shortages, tariff threats, reshoring, and supply chain challenges are pushing companies to adopt greater resource efficiencies and circularity in their business models.

By capitalising on innovation, sustainability, and policy support, investors can benefit from economic growth opportunities while having a positive societal impact.

What is a circular economy?

A circular economy seeks to capitalise on the transition from traditional linear economies ("take-make-waste") to circular systems. It's a **new economic model aimed at eliminating waste and continually reusing resources to create a closed-loop system.** This approach prioritises sustainability by designing products for durability, repairability, and recyclability, thereby reducing environmental impact and resource depletion.

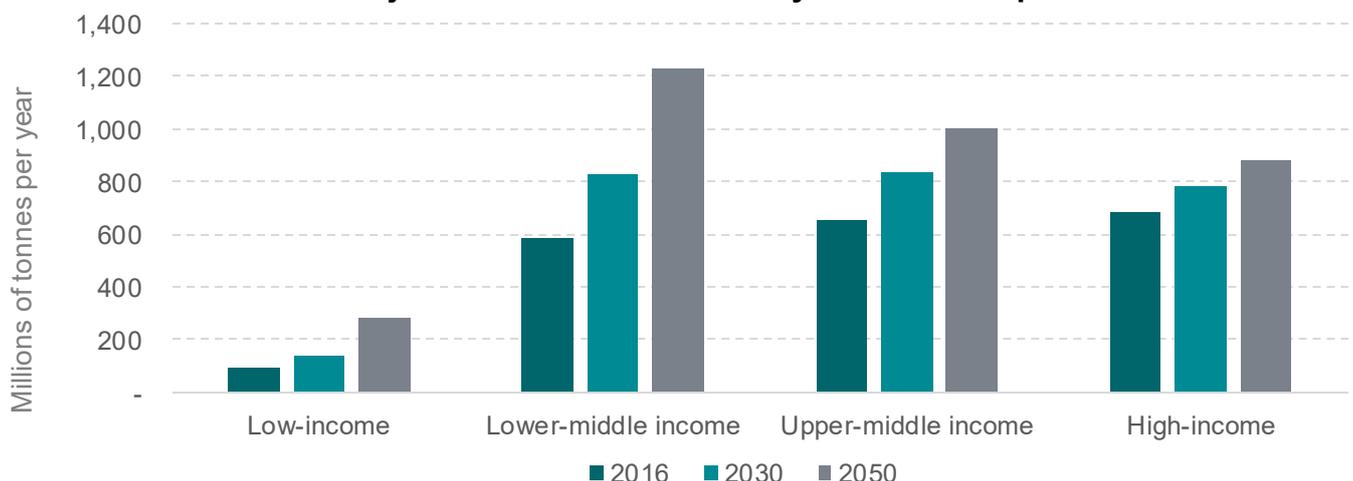
"It's the consequences of decisions made at the design stage that determine around 80% of environmental impacts"

European Commission

WHY INVESTING IN CIRCULAR ECONOMY?

- Economic Benefits:** The circular economy can drive economic growth by creating new business opportunities and jobs. We understand that recycling alone cannot tackle waste on this scale. Intelligent design, smart manufacturing and other technological innovations that enable waste and energy avoidance are well-positioned to benefit from these trends, and support growth.
- Environmental impact:** By reducing waste and promoting the efficient use of resources, the circular economy helps mitigate environmental impacts. This is crucial for addressing climate change and achieving sustainability goals. Over 1,000 organisations have set ambitious circularity goals to be achieved by 2025, such as eliminating unnecessary plastic packaging and increasing the share of post-consumer recycled content.
- Resource security:** Geopolitical fragmentation and the transition to a lower carbon economy amidst global warming are leading to an increased focus on the security of the supply of resources, especially critical raw materials required for the energy transition. Recent conflicts in the Middle East and in Russia-Ukraine, as well as structural competition between the U.S. and China disrupt the supply of resources. Transitioning to a circular economy is a way to address these supply challenges. Circular solutions include material recovery through recycling back to a raw material form to use again for production. Recycling is key to the low carbon transition, which is why a target of at least 15% of recycled commodity input forms a key part of the EU's Critical Raw Materials Act introduced in March 2023.

Projected Waste Generation by Income Group



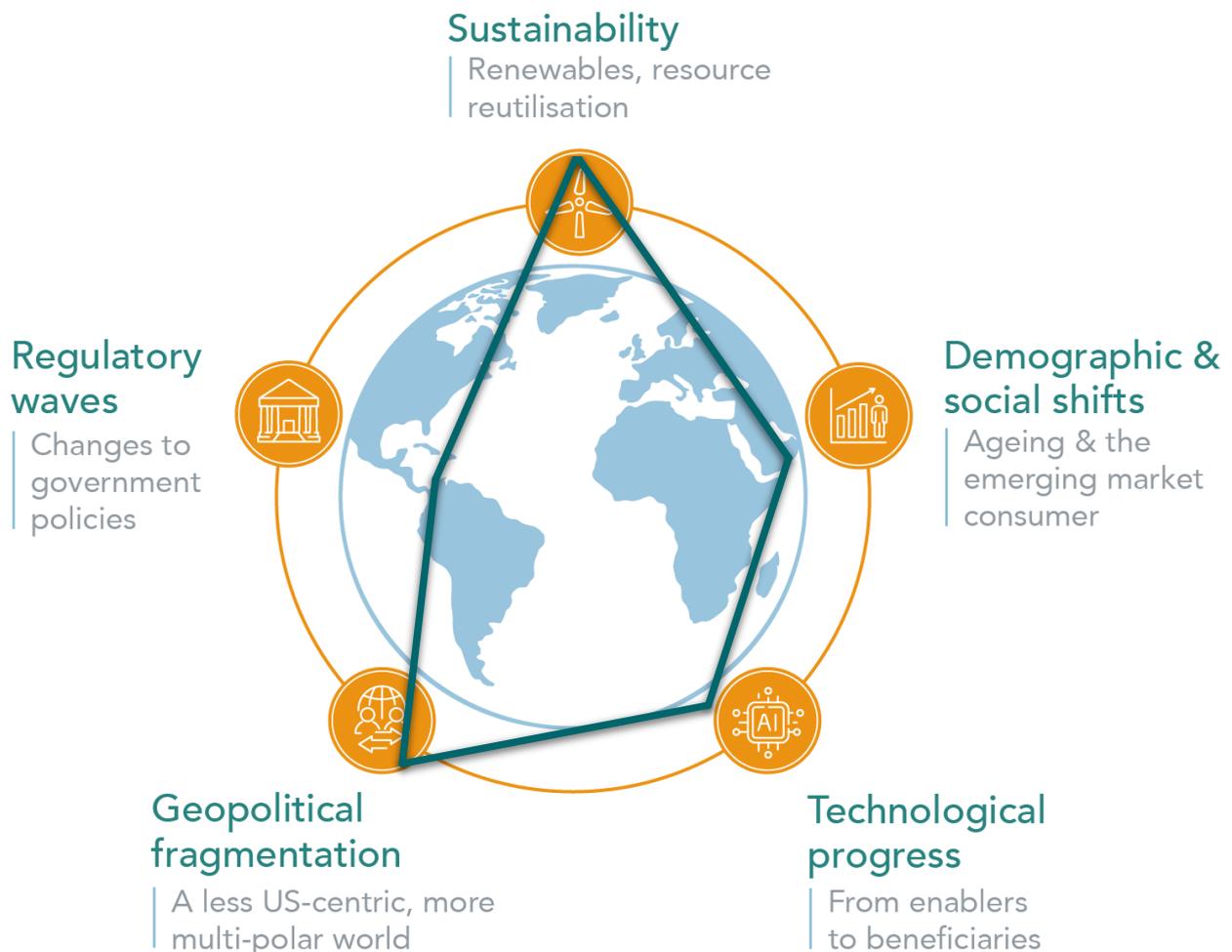
Source: World Bank Group, *What a waste 2.0*

WHY IS CIRCULAR ECONOMY IN OUR THEMATIC PORTFOLIO?

We aim to capture key secular trends in our thematic investments, namely technological progress, geopolitical fragmentation, demographics & social shifts, regulatory waves and sustainability. In our thematic selection, circular economy scores the highest in sustainability and scores well in demographic & social shifts, geopolitical fragmentation and technological progress. It also adds diversification to a more traditional equity/bond portfolio.

- **Sustainability:** Our current linear economy consumes 100 billion tonnes of materials annually, wasting over 90% and recycling a mere 8.6%. Implementing circular practices would lead to greater resource efficiencies, while also lowering costs and reducing operational risks.

- **Demographic & social shifts:** the growing consumer awareness and preferences for products that are cleaner, healthier and non-harmful to both health and the environment.
- **Geopolitical fragmentation:** Reshoring and supply chain challenges translate into opportunities. Ongoing cost inflation and supply chain disruptions are pushing companies to reconsider offshore production. Embracing localised manufacturing as a circular solution offers firms greater visibility, easier planning and reduced risks.
- **Technological progress:** AI-spurred business intelligence and innovation are behind strong growth. More broadly, AI-driven business intelligence like predictive maintenance tools enable companies to monitor, repair, and upgrade operational assets, extending their lifespan, cutting costs, minimising waste and operational risks.



A NEW ECONOMIC MODEL

Tight labour markets and the reshoring of supply chains are likely to keep production costs elevated and potentially keep inflation higher relative to the previous decade. When pricing power is limited, as was likely the case before the Covid-19 pandemic, industries may have found hard to pass along to customers the increase in costs.

Circular economy concepts, if implemented correctly, will bring efficiency at every scale and industry. The companies that will adopt it will gain or maintain profit margins, compared to companies which are still in the pure linear model, which will be forced to cede margins to remain price competitive amidst increased competitiveness.

IN PRACTICE: INVESTMENT OPPORTUNITIES IN THE CIRCULAR ECONOMY



Pricing power: Companies providing sustainable materials for buildings and infrastructure can be well-positioned. These companies can seek resilient margins as infrastructure spending remains strong and where weakening inflation drives demand growth within the residential space. Waste management companies may benefit from inflation-lagged pricing, and as inflation moderates, pricing is likely to remain strong.



Innovative companies: Innovation in packaging design, shifts in material usage, and scaling up infrastructure are anticipated to drive progress towards circularity. Look for companies that provide technologies to limit, recover, and reuse critical resources. These companies are likely to benefit from the growing focus on resource security and sustainability.



M&A: Industrial software companies and plastic alternatives like aluminium, glass, and paper are likely to benefit from the transition towards the circular economy. As companies aim to meet targets, we expect an increase in acquisitions between companies that have set ambitious targets and enablers that hold the solutions to the circular transition.



Circularity targets: Companies that are "best in class" in terms of circular economy adoption are expected to positively impact their business. Innovation in packaging design, shifts in material usage, and scaling up infrastructure are anticipated to drive progress towards circularity.



A THEME EXPECTED TO GROW BY 22% ANNUALLY

| Market size (in billion) | Year |
|--------------------------|------|
| \$690.19 | 2024 |
| \$2,882.11 | 2031 |

Source: kingsresearch

“In six years, humanity has consumed over half a trillion tonnes of materials—nearly matching the total used in the 20th century”.

-The Circularity Gap Report 2024

CONCLUSION

The circular economy is not just a theme; it's a new way of extraction, production, conception, and consumption, which will allow adopters to gain pricing power while addressing some of the most pressing challenges of our time. By focusing on resource security, economic benefits, and environmental impact, the circular economy offers a sustainable path forward with clear economic benefits.

INVESTMENT CASE: THE DIGITAL TWIN APPLICATION

Nvidia's globally leading digital-twin platform Omniverse is a virtual true-to-reality representation of real world's physical assets and flows. It allows one to design, simulate, continuously update, optimise, and manage real activities in the physical world. It is the backbone of Smart Cities, Smart Manufacturing, and Smart Logistics. Omniverse is used by the majority of large auto Original Equipment Manufacturers (OEMs) for crash testing. For instance, simulating the car crash virtually thousands of times, to finally crash a real car only as a last test, with few car crashes. Omniverse is a key tool for reducing resource overuse and achieving resource efficiencies and waste avoidance in many manufacturing environments, as well as infrastructure processes and projects. Nvidia is now also integrating generative AI into the Omniverse platform, which is further increasing the platform's superiority.

HOW TO INVEST THE THEME?

Our dedicated funds solution team selected a strategy, investing in quality business models that offer a path to less waste to their customers and robust growth, paired with potential attractive returns to investors. The thematic alignment of the fund is guided by the European taxonomy framework for circular economy. If you require any further information, feel free to reach out to your local Client Advisor.



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Methodology

The thematic investment process offers a comprehensive and dynamic approach by combining both strategic and tactical elements to capture long-term and short-term opportunities.

Firstly, quantitative analysis is conducted to identify which themes have historically added the most alpha beyond systematic drivers of return. This is followed by qualitative analysis, where forward-looking views for each theme are created, supported by BlackRock group of thematic research.

Next, a strategic portfolio is built through optimisation. To ensure the portfolio remains relevant, short-term signals such as momentum, sentiment, analyst revisions, and valuations are constantly monitored, allowing for tactical tilts.

Finally, the portfolio is dynamically rebalanced to exploit tactical opportunities while capturing the long-term equity premium from strategic positions.

This process ensures a more comprehensive and dynamic investment approach, balancing strategic and tactical considerations.

If you require any further information, feel free to reach out to your local Client Advisor.

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