LOMBARD ODIER
INVESTMENT MANAGERS

Environmental transition

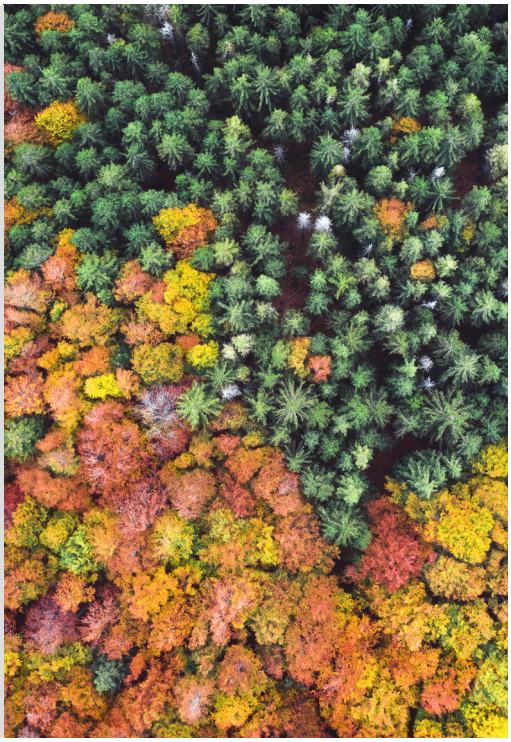
How can investors prepare for a changing economy?

For professional investor use only • Sustainability

November 2022

Key points

- Our current economic model is unsustainable. It has led us to cross five of the nine planetary boundaries that define the safe operating space for life on Earth, including climate change and biodiversity loss
- The transition to a more sustainable model is now accelerating - driven by policy, economics and consumer sentiment. This will lead to fundamental disruption to energy, land and oceans, and material systems
- These changes will affect 95% of our investment universe, which raises two key questions for investors:
  1) How can we evaluate companies' alignment to the transition?
  2) What are the financial implications for businesses?
- At our recent Sustainability Forum, LOIM portfolio managers and sustainability specialists outlined our approach to building strategies that target businesses best placed to thrive in a changing world
- This helps our clients avoid transition risk while capturing the opportunities for sustainability alpha that are emerging across public and private markets



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This report outlines key insights from a Sustainability Forum hosted by Lombard Odier Investment Managers (LOIM) in September in London. The theme of the event was "Investment Implications of Planetary Boundaries". Speakers addressed the main environmental challenges that are shaping the economy and how investors should respond.

Interconnected challenges

At LOIM, we seek to invest in solutions to help keep Earth within the nine planetary boundaries, including climate change and biodiversity loss, that define the safe operating space for humanity. A number of these have already been breached, and urgent action is needed to correct course. However, we cannot lose sight of the interconnectedness among the risks – the fact that addressing one environmental challenge can often exacerbate another. These risks can be heightened by the use of incorrect or incomplete investment frameworks.

However, this interconnectivity can also be seen as an opportunity. This is the idea behind LOIM's systems changes framework. We have carried out extensive research into the implications of the transition and identified areas for investment. At a high level, we seek opportunities affected by pricing externalities linked to carbon and connected to the use of 3 main systems: land and oceans, energy and materials.

To give just one example of interconnectivity: while growth in electric vehicles (EVs) is good news for the climate, it creates other sustainability challenges – not least the need for raw materials used in EV batteries. We must therefore consider broader changes within the transport system. The other side of this is that we can identify connected areas that could result in a positive overall impact and deliver strong returns.

Click here for more on LOIM's conviction that key systems changes can enable the transition to a CLIC® economy that is circular, lean, inclusive and clean

We are working with our clients to assess their impact on each of the nine boundaries and help them avoid limiting their focus during the transition and causing unintended consequences. If they only consider climate change, for example, they run the risk of building a strategy that may positively impact climate but cause harm related to other planetary boundaries, such as land system change. They may then eventually need to reverse course on their investments or face uncertainty as the market recognises these issues.

"If you focus on any transition in isolation, you may well exacerbate other environmental problems. Planetary boundaries are interconnected. The biggest challenge we have is to have everything move all at the same time, which requires a focus on system-level thinking and solutions."

Thomas Hohne-Sparborth, PhD
Head of Sustainability Research

"By tackling carbon emissions in isolation, we won't address other looming challenges like over-extraction of resources, or excessive use of agrichemicals that is polluting our environment and threatening our food systems."

Alina Donets
Portfolio Manager, Natural Capital strategy

"It's lateral thinking between 3 systems: you solve the energy piece, but its consequential for the materials transition - for the commodities we need, etc. It's not about a linear focus on a single area."

Michael Urban, PHD
Chief Sustainability Strategist

Enhancing the use of metrics by assessing beneficiaries of changing profit pools

Carbon metrics (both past and forward-looking) are increasingly being integrated into investment strategies. This is a good starting point, especially from a risk-management perspective.

However, it is important to start digging deeper. The transition to a clean and circular economy is being driven by market forces, investors, consumer demand, and policy and regulation. This calls for an approach that uses forward-looking metrics and finds business models that will thrive in our changing world. We do this via understanding the system changes taking place and the disruptions benefiting those with competitive solutions.

In food systems, for example, the need to reduce land use by 20% while also feeding a global population that is expected to rise by 2 billion by 2050 will require rethinking diets and how we grow products. In energy systems, we need to move the portion of electrified energy to 70% (from only 20% today). This can help us identify potential stranded assets and new opportunities. At LOIM, we have launched strategies in both public equities and private markets to invest in such areas.

Carbon footprinting is a good starting point for measuring climate risk, but investors must look more broadly at themes driving the planetary transition. At LOIM, we use both our internal sustainability team as well as external partners like Systemiq to identify the key themes connected to the transition that go beyond a narrow focus on carbon emissions – for example natural capital, new food systems and material circularity – as well as various sub-themes impacted by each system change.

Figure 1 below sets out examples of shifting profit pools.

> "Mobility is one of many aspects of our economy that will be up for a major rethink. Electrification is key, but shared and autonomous driving will also form part of this. For the car-manufacturing industry, this requires a rethink, to consider where future earnings will come from: from manufacturing, or things like leasing, maintenance, repair or EV charging? The reason different manufacturers are valued the way they are is less about how many vehicles they sell and more about how they are positioned to address changing profit pools."

Thomas Hohne-Sparborth, PhD
Head of Sustainability Research

FIG 1. CONVICTIONS ON RELEVANT SYSTEM CHANGES

Personal mobility	Logistics	Nutrition
Rapid **electrification** with 40-70% electrification of new passenger vehicle sales expected by 2030	Electrification of **light and heavy road transport** of up to 20% by 2030	Reduction of **animal-based products** (and waste fat) by 20-35% by 2050
Peak oil demand expected by 2023-2025 with demand by 2030 at 10%-30% below peak levels	Increase in **demand for biofuels** by 130-170% across all forms of transport by 2030	Reduction of **food waste** by 50% by 2030, reduction of remaining waste **sent to landfill** (35%) by c. 100%
Demand for **EV charging** reaches 1,000 to 1,500 TWh per year by 2030	Increase in demand for **sustainable aviation fuels** from 1Mt to 25Mt – 34Mt by 2030	Move to **deforestation-free** supply chains and reduced reliance on **palm oil** and similar commodities

Source: LOIM; For illustrative purposes only.

Investing in the transition

The transition should unlock trillions in untapped value. At LOIM, we seek to develop tools to capture that upside and manage the risks. We use detailed research to identify green convictions and apply resilience tests for other convictions in our portfolios.

Our approach assesses two key areas: how aligned a company is to the transition, and how financially exposed it is to the transition.

A company may be doing the right things on sustainability but still face a loss of market share as profit pools shift away from the industry it operates in. On the other hand, there are some companies with a considerable environmental footprint, but the goods and services they provide are expected to boom as the economy transitions to a more sustainable model. Our research helps us understand these distinctions.

One type of company we often find particularly appealing is "ice cubes". These are businesses in high-emitting sectors with credible and robust decarbonisation plans that are helping "cool down the planet". They are likely to face lower costs and competitive advantage as environmental regulation, particularly carbon pricing, is extended.

Click here for our view on how to future-proof your decarbonisation strategy

"Policy and regulation are intensifying, capital is starting to shift, market-based solutions are winning, consumer behaviour is becoming bolder. The driving forces are falling costs and simple economics, which are moving in the right direction and much faster than the market anticipates."

Thomas Hohne-Sparborth, PhD
Head of Sustainability Research

"We see the ice cubes as opportunities for investment. These are companies that may be high emitting today, they may look dirty or carbon heavy today, but are showing every evidence of a successful transition. They are spending huge amounts of capex in a way that if the transition happens as we expect, they will have advantages."

Maxime Perrin
Head of Sustainable Investment

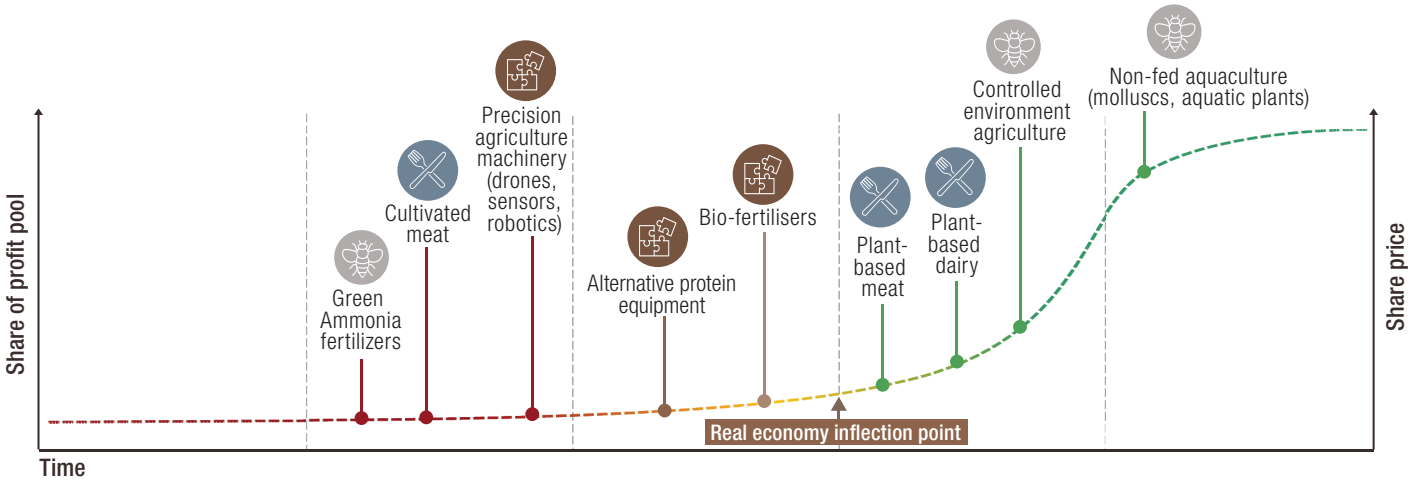
"In the agricultural space, for example, using land better isn't just good for environment: more efficient and nourishing land use allows for increasing the yield in food production at no cost to the environment. The technology that helps to protect the use of the land also helps increase economic returns."

Alina Donets
Portfolio Manager, Natural Capital

"The inflection point is when we move from a niche to a mass market. Multiple solutions are approaching mass market inflection points."

Michael Urban, PHD
Chief Sustainability Strategist

FIG 2. MULTIPLE SOLUTIONS ARE APPROACHING MASS MARKET INFLECTION POINTS



Source: LOIM; For illustrative purposes only.

In summary, there are a number of things to consider when investing in the sustainability transition.

- Investors must holistically focus on planetary boundaries to avoid inadvertently supporting harmful practices that will require an eventual change in investment strategy
- The transition is reshaping risk and return dynamics across sectors and asset classes, and it will play out through systems change in energy, materials, and land and oceans – with the pricing of carbon externalities acting as an enabler
- While many of our peers are avoiding the companies we refer to as ice cubes, we can identify these opportunities for our clients through our engagement and analysis

Ultimately, we see sustainability as the biggest return-generating opportunity from an investment perspective. At LOIM, our mission is to help clients capture sustainability alpha across public and private markets. Examples of themes we are working on include natural capital, climate solution private debt, carbon opportunities trading and plastics-related private equity.