

BANKS NEED TO SQUARE THE CIRCULAR ECONOMY OR RISK SIGNIFICANT CREDIT LOSSES

MOVING TOWARDS A CIRCULAR ECONOMY IS CENTRAL TO FIGHTING CLIMATE CHANGE. THIS REPRESENTS RISKS AND OPPORTUNITIES FOR THE BANKING SECTOR.

Climate Risk Perspectives

CODE RED INSIGHTS

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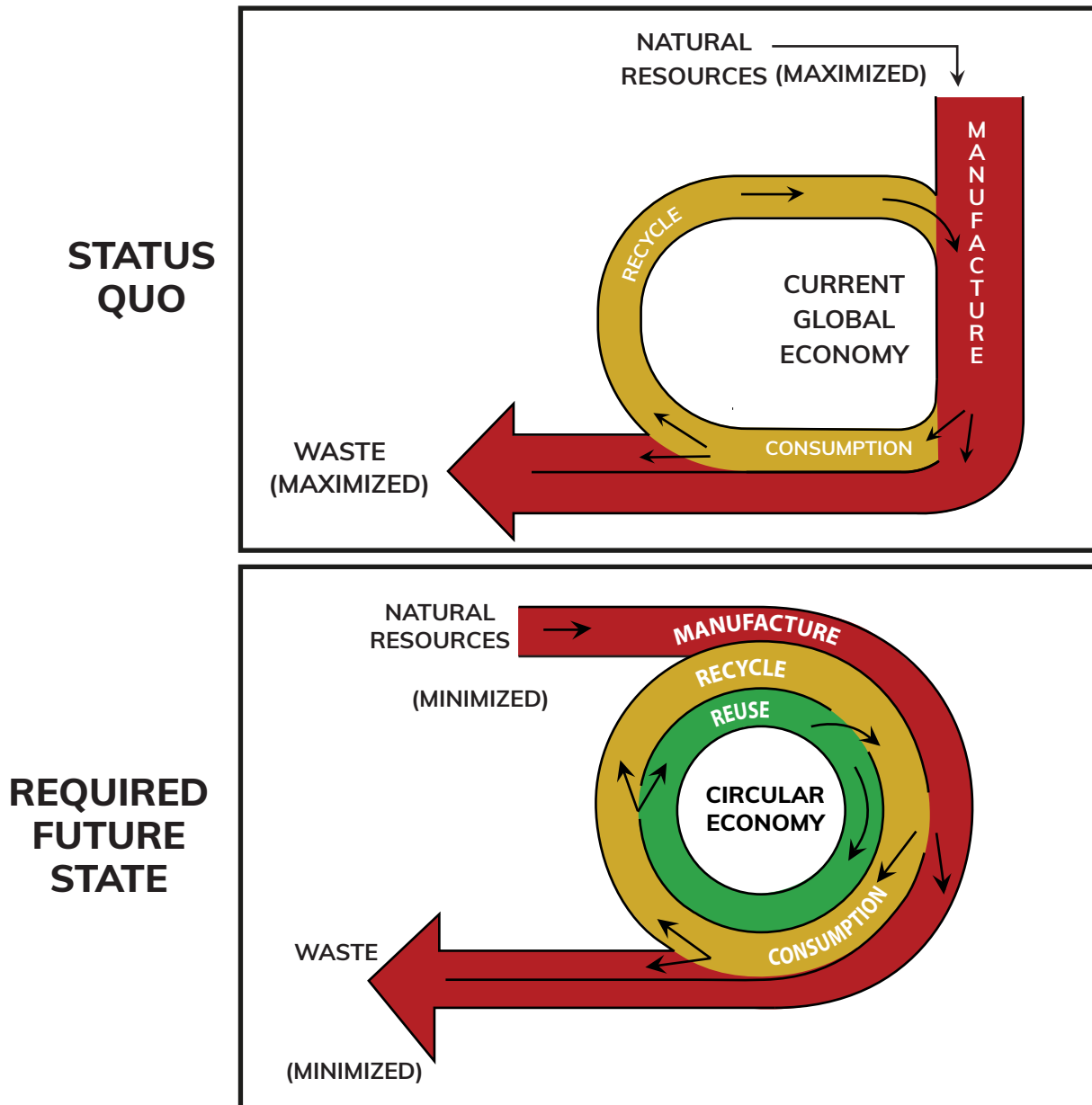
Defining a circular economy...

The term circular economy is widely used within the discussion around addressing climate change. It has a specific place in the detailed plans of governments, such as the EU, as they are unveiled to make global economies more sustainable. The exact definition of a circular economy varies, but the World Economic Forum (WEF) defines it as:

“A circular economy is an industrial system that is restorative or regenerative by intention and design. It replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse and return to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems, and business models.”

In simpler terms, it can be read as:

- **Long term usefulness is built into product design** - Products should be designed to avoid waste, which means, they should be made in such a way, that;
 - They remain in use as designed
 - They are repurposed
 - They are recycled
- **Waste is eliminated** - Waste from industrial processes is often viewed as a necessary evil, but ought to be seen as a process failure. The following are to be specifically avoided;
 - Landfill creation
 - Oceanic pollution
 - Global shipping of waste, including recycling, between jurisdictions
- **Biosphere regeneration** - By keeping existing goods in circulation for a longer period, it is possible to;
 - Allow forests to recover and act as natural carbon sinks
 - Prevent plastic in oceans from breaking down into methane and ethylene, both of which accelerate global warming



Creation of a circular economy...

The Ellen McArthur Foundation is committed to establishing a circular economy and has published a set of guidelines for policy makers to achieve that goal. Suggestions from them include:

Stimulate design for a circular economy - Product policies, building regulations, agricultural land-use, food policies, and international standards, all can accelerate the transition to ensuring that what is placed in the market is designed with a circular economy as the ultimate goal.

Manage resources to preserve value - Policies that incentivize collection, separation, and sorting systems that can support reuse, sharing, repair, and remanufacturing of products, in addition to high-quality recycling and treatment systems, such as composting and anaerobic digestion.

Make the economics work - Aligning taxation, subsidies, state aid and government funds, competition, labor and trade policies, as well as procurement, disclosure, and accounting requirements, with circular economy principles.

Invest in innovation, infrastructure, and skills - Targeted public investments in transformative business models, product, and material innovation, as well as physical and digital infrastructure, are all requirements of a circular economy.

Collaborate for system change - Establishing alignment and harmonization nationally and internationally is key, as is the development of processes that are inclusive and additive to the overall value chain, and which provide policymakers with the feedback they need.

ref: Ellen MacArthur Foundation, Universal Circular Economy Policy Goals (2021)

From the above it is clear that, for a circular economy to be established, a significant government willingness to invest, subsidize and legislate, is needed.

Governments are adopting circular economy thinking..

The EU adopted the Circular Economy Action Plan (CEAP) in 2020 and it is a focal point in the bloc's Green New Deal. Its stated aims are:

- Make sustainable products the norm in the EU.
- Empower consumers and public buyers.
- Focus on the sectors that use most resources and where the potential for circularity is high such as - electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water, and nutrients.
- Ensure less waste is generated.
- Make circularity work for people, regions, and cities.
- Lead global efforts in building a circular economy.

These aims are backed up by a 35-point initiative tracking plan that can be read [here](#). Industries within the region can expect regulatory pressure to mount over the next few years, particularly as the EU has increased its CO2 reduction target to 55% by 2030.

The UK, following its exit from the EU, also announced a similar package, '[The Circular Economy Package](#)', in 2020. The US and Canada have both been called on by the UN (speech - [North America and the Circularity Transition](#)), to lead the world in its move towards sustainability, with Phoenix and Toronto being praised for their efforts towards a circular economy. More policy is expected to come from both countries.

Financial industry needs to understand circular economics...

As is generally the case with climate change initiatives and goals, implementation is a mix of direct government action, subsidy, and regulation. The impact of the move to a circular economy will be felt by existing businesses and new projects alike, as adaptation costs and stranded assets significantly change the business projections and credit profiles of firms across all sectors. It will also create new opportunities for innovation and replacement businesses, better suited to regulatory frameworks.

Banks have to examine their own exposures and ensure that loans and credit facilities are priced for the known and expected changes to businesses they finance. At a minimum, this entails:

- Understanding current and forthcoming regulations that impact businesses they already provide credit to.
- Anticipating likely future regulations that may 'strand' assets and projects.
- Pricing credit to incorporate these costs and to encourage circular design.

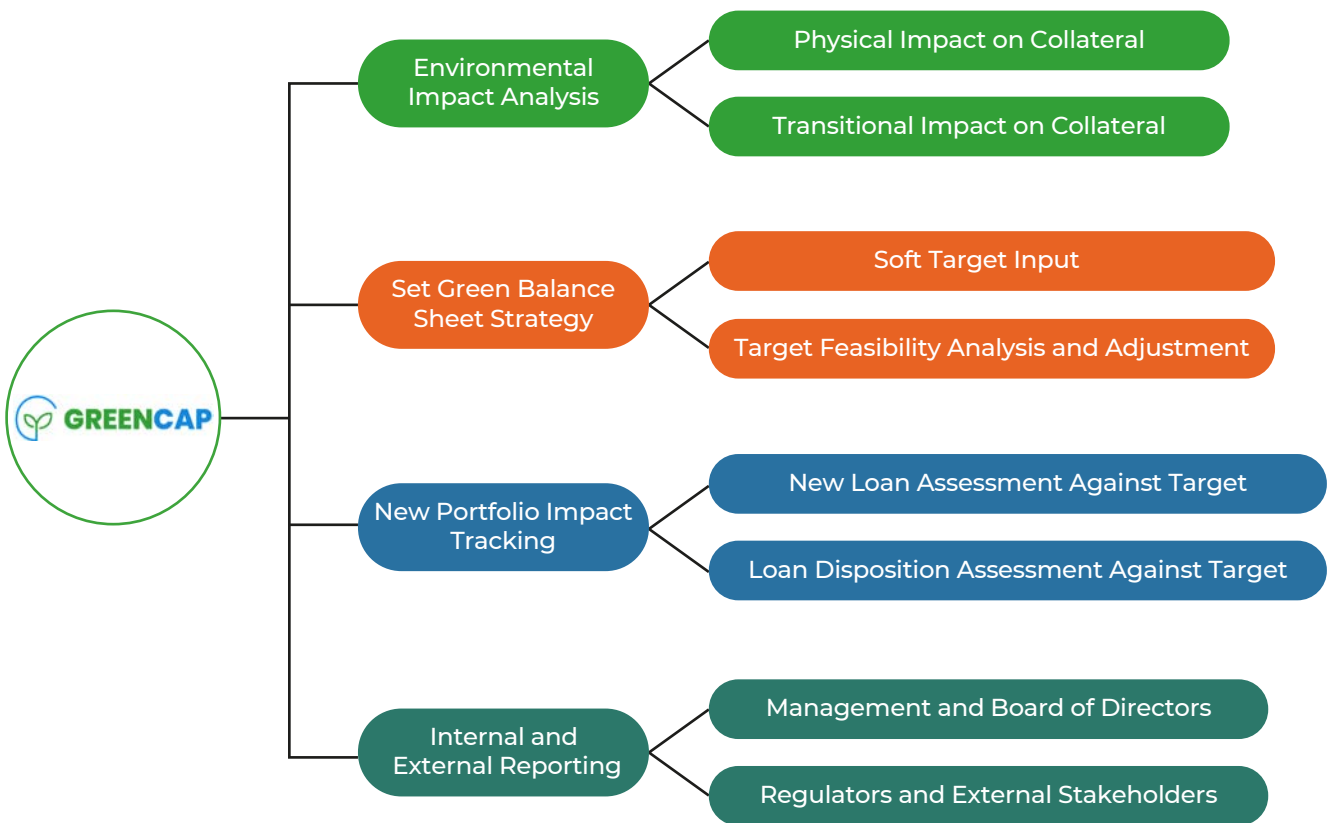
Where policies are already published or enshrined into law, this can be seen as normal 'due diligence'. However, for future policies, banks will have to create scenarios and associated costs to calculate the likely impacts on their balance sheets.

It is important to note that this type of credit price analysis is related, but separate to emissions reporting. Scope 1, 2 and 3 emissions are useful audits of CO2 being financed, but barely touch the breadth of sustainability related impacts that a full move to a circular economy would represent. From Methane, through waste disposal, to agricultural land use, every section of the economy will be affected, and as such, banks have to be cognizant of the risks and opportunities being created.

GreenCap can help...

GreenCap is a system designed to assist banks in:

- Analyzing their balance sheet from the perspective of increased risk from physical and transitional climate change.
- Creating strategies to achieve a greener balance sheet in a way that can be planned, monitored and reported.
- Work with customers to turn 'sustainability in design' into a direct reduction in the cost of their credit facilities.



GreenCap aims to capture the entire cost of climate change risk, and therefore, provide banks with a full picture of challenges and opportunities of the next decade and beyond.



ABOUT GREENCAP

- GREENCAP is a turnkey 'Risk as a Service' (RaaS) solution, designed for banks to include climate change as a category in their risk management frameworks.
- The solution allows banks to replicate climate pathways within their scenarios for economic impact and risk analysis.
- Using GreenCap, banks can modify pathways and scenarios to include the timing effects of delayed sustainability transition measures.
- Loans and credit facilities are measured and monitored against risks arising from both 'physical' and 'transition' impacts.
- GreenCap provides support for risk reporting and governance in the areas of 'Responsible Banking' and climate change.
- With GreenCap, banks can ensure that their climate strategies are financially grounded, and loan pricing is optimized throughout the transition to a green global economy.



ABOUT GREENPOINT FINANCIAL

- GreenPoint Financial is a division of GreenPoint Global, which provides software-enabled services, content, process and technology services, to financial institutions and related industry segments.
- GreenPoint is partnering with Finastra across multiple technology and services platforms.
- Founded in 2006, GreenPoint has grown to over 400 employees with a global footprint. Our production and management teams are in the U.S, India and Israel with access to subject matter experts.
- GreenPoint has a stable client base that ranges from small and medium-sized organizations to Fortune 1000 companies worldwide. We serve our clients through our deep resource pool of subject matter experts and process specialists across several domains.
- As an ISO certified by TÜV SÜD South Asia, GreenPoint rigorously complies with ISO 9001:2015 and ISO 27001:2013 standards.
- GreenPoint is owned by its founders and principals and is debt free.



Marcus Cree

MANAGING DIRECTOR AND
CO-HEAD OF FINANCIAL TECHNOLOGY AND SERVICES

Marcus has spent 25 years in financial risk management, working on both the buy and sell side of the industry. He has also worked on risk management projects in over 50 countries, gaining a unique perspective on the nuances and differences across regulatory regimes around the world.

As Managing Director, Marcus co-heads GreenPoint Financial Technology and Services and has been central in the initial design of GreenPoint products in the loan book risk area, including CECL and sustainability risk. This follows his extensive experience in the Finastra Risk Practice and as US Head of Risk Solutions for FIS. Marcus has also been a prolific conference speaker and writer on risk management, principally market, credit and liquidity risk. More recently, he has written and published papers on sustainability and green finance.

Marcus graduated from Leicester University in the UK, after studying Pure Mathematics, Phycology and Astronomy. Since graduation, Marcus has continually gained risk specific qualifications including the FRM (GARP's Financial Risk Manager) and the SCR(GARP's Sustainability and Climate Risk). Marcus's latest academic initiative is creating and teaching a course on Green Finance and Risk Management at NYU Tandon School of Engineering.



Sanjay Sharma, PhD

FOUNDER AND CHAIRMAN

Sanjay is the Founder and Chairman of GreenPoint Global - a risk advisory, education, and technology services firm headquartered in New York. Founded in 2006, GreenPoint has grown to over 380 employees with a global footprint and production and management teams located here in the U.S, India and Israel.

During 2007-16 Sanjay was the Chief Risk Officer of Global Arbitrage and Trading Group and Managing Director in Fixed Income and Currencies Risk Management at RBC Capital Markets in New York. His career in the financial services industry spans over two decades during which he has held investment banking and risk management positions at Goldman Sachs, Merrill Lynch, Citigroup, Moody's and Natixis. Sanjay is the author of "Risk Transparency" (Risk Books, 2013), Data Privacy and GDPR Handbook (Wiley, 2019) and co-author of "The Fundamental Review of Trading Book (or FRTB)- Impact and Implementation" (RiskBooks, 2018).

Sanjay was the Founding Director of the RBC/Hass Fellowship Program at the University of California at Berkeley and is an Adjunct Professor at EDHEC, Nice in France. Sanjay is also Adjunct Professor at Fordham University where he teaches a similar master's capstone course and at Columbia University. He has served as an advisor and a member of the Board of Directors of UPS Capital (a Division of UPS) and is a frequent speaker at industry conferences and at universities. He served on the Global Board of Directors for Professional Risk International Association (PRMIA).

He holds a PhD in Finance and International Business from New York University and an MBA from the Wharton School of Business and has undergraduate degrees in Physics and Marine Engineering. Sanjay acquired his appreciation for risk firsthand as a merchant marine officer at sea where he served for seven years and received the Cheif Engineer's certificate of competency for ocean-going merchant ships. Sanjay lives in Rye, NY with his wife and two teenage sons.