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Leveraging Sustainable Finance for the Irish Agribusiness Green Transition

Vassilios Papavassiliou

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Vassilios Papavassiliou[i], University College Dublin, UCD Michael Smurfit Graduate Business School and UCD Geary Institute for Public Policy

Introduction

The Irish agricultural sector stands at a critical juncture. Under the Climate Action Plan 2021 and subsequent sectoral ceilings announced in 2022, the Irish government set a legally binding target for the agricultural industry to reduce its greenhouse gas (GHG) emissions by 25% by 2030 (relative to 2018 levels)[ii]. The industry must transition from traditional high-input models to sustainable, data-driven practices. However, this transition is capital intensive. Current credit structures in the Irish banking sector are largely designed for traditional land-based collateral, often failing to account for the unique risk-return profiles of green investments.

This paper argues that for Ireland to meet its Climate Action Plan targets, we must move beyond symbolic green lending. We require a systemic shift in how agricultural risk is priced, how Key Performance Indicators (KPIs) are integrated into credit scoring, and how the Strategic Banking Corporation of Ireland (SBCI) and private capital markets are leveraged to provide long-term, low-cost transition finance.

The scale of the challenge

Ireland's agribusiness is the backbone of the rural economy, yet it accounts for roughly 37% of national GHG emissions based on recent reports from the Environmental Protection Agency (EPA). This percentage is unique to Ireland within the EU (where the average is closer to 10%).

The green transition requires significant on-farm investment in:

- Low-Emission Slurry Spreading (LESS) equipment.
- Anaerobic Digestion (AD) infrastructure.
- Solar PV and renewable energy integration.
- Methane-reducing feed additives and genetic breeding.

UCD Geary Institute for Public Policy, University College Dublin, Belfield, Dublin 4, Ireland.
Phone: +353 1 716 4615 Website: https://www.ucd.ie/geary Email: geary@ucd.ie

Estimates suggest that the total capital expenditure required for the Irish dairy and beef sectors to reach 2030 targets could exceed €3 billion. It is important to contrast the €3 billion investment with the cost of failure. Reports from the Irish Fiscal Advisory Council (IFAC) in 2025 indicated that if Ireland fails to meet its EU effort-sharing targets (of which agriculture is the biggest part), the state could face compliance costs ranging from €3.5 billion to €8 billion by 2030.

Currently, the "green gap" - the difference between available traditional credit and the required sustainability investment - remains a primary barrier to entry for the average family farm. Historically, Irish banks have evaluated farm credit based on historical cash flows and land value. However, this model is insufficient for the green transition for three reasons:

- *Payback mismatch:* Traditional agribusiness loans typically carry 5-to-7-year terms. However, investments like anaerobic digesters or large-scale solar arrays have a Return on Investment (ROI) cycle of 10 to 15 years. Forcing a 15-year asset into a 7-year repayment schedule creates a liquidity squeeze that discourages farmers from participating.
- *Collateral valuation:* While land is a stable asset, the green equipment itself often has low resale value or is highly specialised. Banks currently do not assign collateral value to a farmer's reduced carbon footprint or improved soil health, even though these factors reduce the farm's long-term regulatory and market risk. Although a farm may be objectively less risky, this does not show up on a standard 12-month balance sheet and is invisible to credit risk models – a regulatory risk paradox.
- *Cost of debt and funding heterogeneity:* In the context of current European Central Bank (ECB) rates, the spread or margin that banks charge on agribusiness loans has remained high. Without a mechanism to distinguish a green farm from a "brown" (high-emission) farm, all farmers pay a similar risk premium, effectively subsidising higher-polluting operations at the expense of sustainable ones. Although new green loan products have been recently introduced, banks do not yet officially penalise high-emission farms with higher brown rates. This means the base risk pool is still averaged out across the sector.

Integrating sustainability KPIs into credit scoring

A central pillar of this policy proposal is the standardisation of key performance indicators (KPIs). If a bank cannot measure sustainability, it cannot price it. To align

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with the EU taxonomy for sustainable activities, Irish lenders must move toward a model where interest rates are linked to specific, verifiable environmental outcomes.

Recommended KPIs for Irish lenders:

- *Nitrogen Use Efficiency (NUE):* A direct correlation exists between NUE and farm profitability. High efficiency reduces fertiliser costs and leaching. Banks should offer step-down interest rates where the margin decreases as the farm's NUE improves.
- *Carbon intensity per unit of output:* Rather than measuring total emissions (which penalises larger, efficient farms), the policy should focus on intensity. This rewards farmers who produce more food with a lower environmental footprint.
- *Soil Organic Carbon (SOC)*: Soil health is a proxy for the long-term productivity and value of the farm. Regular soil testing data should be integrated into the bank's annual review of the farm's asset value.

Bridging the data silo: Teagasc and the financial sector

Ireland has a unique advantage in the form of Teagasc (the Agriculture and Food Development Authority) and the Signpost programme, a multi-annual campaign to lead climate action by all Irish farmers. Currently, there is a data silo between agricultural research and financial services. There is no automatic permission for Teagasc to send a farmer's environmental performance score directly to AIB or Bank of Ireland. Moreover, Teagasc and the banks have not yet agreed on a standardised green credit score.

Policy recommendation: The Department of Agriculture, Food and Marine (DAFM) should facilitate a voluntary green data pass. This would allow farmers to share their verified environmental progress (via the Teagasc Carbon Navigator or Bord Bia's SDAS - Sustainable Dairy Assurance Scheme) directly with their bank. In exchange, the bank would be required to offer a green discount on the loan margin, as the data proves a lower regulatory risk for the lender.

The Role of state-backed finance: The SBCI

The Strategic Banking Corporation of Ireland (SBCI) has already launched successful sustainability loan schemes. However, these are often limited in scale or duration. It is recommended that a national green agri-guarantee scheme be introduced, whereby

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Phone: +353 1 716 4615 Website: https://www.ucd.ie/geary Email: geary@ucd.ie

the State provides an 80% loss guarantee to commercial banks for certified green agricultural loans. An 80% loss guarantee is high enough to fundamentally change bank behaviour, but not so high that it creates reckless lending. This mechanism would effectively remove the risk weight from lenders' balance sheets, allowing them to offer interest rates that approach the sovereign borrowing rate and are capped to ensure financial benefits are passed directly to the farmer.

This approach allows for the implementation of 10-to-15-year repayment schedules that match the actual ROI of assets, replacing the liquidity squeeze of traditional short-term loans with a sustainability-linked credit framework that rewards improved nitrogen use efficiency and reduced carbon intensity.

Capital markets: The case for the issuance of a retail agri-bond

Ireland's reputation as "Origin Green" (Ireland's pioneering food and drink sustainability programme, operating on a national scale), provides a branding advantage that has yet to be fully exploited in the bond markets. The Irish government should explore the issuance of a retail tax-free agri-sustainability bond. This bond would allow Irish citizens to invest their savings directly into a fund managed by the SBCI, which would then be earmarked exclusively for on-farm sustainability upgrades. By offering tax-free returns, this green bond would serve as an irresistible alternative to traditional savings, driving significant retail capital toward the 2030 climate targets. This creates a circular economy of finance: Irish savings used to protect the Irish landscape, with a guaranteed return backed by the state.

Managing systemic risk: The brown discount vs. green premium

Green premium and brown discount are the two sides of the same coin. They describe how the market adjusts the value of an asset based on its environmental impact. It can be thought of as a "carrot and stick" approach to valuation: the green premium is the reward for being sustainable, while the brown discount is the penalty for staying environmentally damaging or carbon-intensive (a discussion is provided by Bolton and Kacperczyk (2023) and Pastor et al. (2022)).

Under the EU Taxonomy and the Corporate Sustainability Reporting Directive (CSRD), banks are increasingly required to report their Green Asset Ratio (GAR). Assets that are brown become a regulatory burden, requiring the bank to hold more capital against them.

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From a financial stability perspective, the Central Bank of Ireland must consider the stranded asset risk of high-emission farms. As EU regulations tighten and carbon taxes rise, high-polluting farms will become less profitable and more likely to default. Policymakers should encourage banks to begin applying a brown discount (higher capital requirements) for loans to farms that refuse to engage with any sustainability measures. This is not about punishing farmers, but about accurately pricing the long-term transition risk that these farms represent to the Irish banking system.

Conclusions

The green transition in Irish agribusiness is not merely an environmental challenge but a profound financial engineering challenge. What is currently missing is the policy bridge to connect farmers, banks, and Teagasc. By standardising KPIs, expanding the role of the SBCI, and breaking down the data barriers between scientists and bankers, Ireland can create a world-leading sustainable finance ecosystem. This will not only protect our climate targets but will secure the economic future of rural Ireland for generations to come.

References

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[i] Dr Vassilios Papavassiliou is the Academic Programme Director of MSc in Sustainable Finance at the UCD Michael Smurfit Graduate Business School. Email: vassilios.papavassiliou@ucd.ie

[ii] A detailed discussion is provided in the Climate Action Plan 2021(https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/climate-action-plan-2021/), the Climate Action and Low Carbon Development (Amendment) Bill 2021(https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/climate-action-and-low-carbon-development-amendment-bill-2021/), and the Sectoral Emissions Ceilings policy (https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/sectoral-emissions-ceilings/).