Thesis Title: Shades of Green: The Bidirectional Dynamic ESG-Return Relationship Across Global Markets
Author: Marcel Philippe Eschwe – CLSBE Master in Finance

Context and Motivation

The accelerating fragmentation of global markets and the rise of geopolitical, ecological, and financial instability have made strategic sovereignty a central economic concern. As states and firms confront climate risks, supply-chain fragilities, and regulatory divergence, sustainable finance has emerged as both a lever of autonomy and a source of dependence. ESG frameworks, now embedded in investment mandates, disclosure systems, and capital-allocation mechanisms, shape firms' ability to finance transitions and manage external shocks. Yet their financial implications, causal dynamics, and sovereignty-relevant mechanisms remain contested. This thesis investigates whether ESG contributes to economic and financial resilience or whether it exposes firms to new forms of dependence on global investors, markets, and rating systems.

Research Gap and Contribution

Existing ESG-return research is largely static, US-centric, and methodologically fragile, often assuming a one-directional ESG-Return link while ignoring feedback effects. Such approaches cannot reveal whether firms depend on capital-market pressures to adjust governance or whether sustainability initiatives carry a "sovereignty cost" in the form of reduced returns. This thesis closes this gap by estimating the first global dynamic causal system of ESG and returns, capturing bidirectional dependencies across 6,379 firms in 52 countries (2003-2024). Using a GMM-estimated Panel Vector Autoregression (PVAR) with firm and time fixed effects, I decompose the ESG score into E, S, and G pillars and analyse responses through impulse-response functions (IRFs). This model isolates true dynamic interactions, disentangling causality from correlation, which is crucial for understanding financial sovereignty.

Key Findings

1. A persistent negative ESG-return relationship (the "transition cost effect"). Across global markets, increases in ESG lead to lower future returns, particularly driven by the E and S pillars. This reflects the economic cost of aligning with sovereign sustainability agendas, reinforcing the idea that strategic autonomy has financial trade-offs.

2. Governance increases as a reaction to past underperformance ("self-governance under pressure"). Firms respond to negative performance shocks by strengthening their G pillar, suggesting a self-correcting mechanism: in periods of financial vulnerability or external geopolitical uncertainty, firms tighten governance to regain investor confidence. This embodies a form of micro-level sovereignty restoration in response to market threats.

3. Strong regional asymmetries reflect competing regulatory sovereignties. The ESG-return nexus is robust in Europe, North America, and other developed markets but largely absent in emerging markets. Governance effects are significantly stronger in the U.S. This demonstrates how regional ESG regimes shape firms' dependence on local capital-market expectations, evidencing a geopolitical dimension of sustainable finance.

4. Investor structure conditions ESG's financial impact. The negative ESG premium emerges only in high-liquidity environments and weakens under high passive ownership. Global investors influence corporate sovereignty: liquid markets amplify sustainability costs, while passive capital dampens them.

Implications for Sovereignty and Dependence

The results show that ESG is more than a disclosure framework: it is an economic infrastructure with sovereignty implications. Firms increasingly depend on global rating agencies, international investor preferences, and region-specific regulatory pressures, affecting their ability to pursue autonomous strategies. Simultaneously, the governance-strengthening response to poor returns suggests that financial markets can act as stabilizing forces, inducing forms of self-regulation that enhance institutional robustness in periods of geopolitical stress. For policymakers, these findings highlight the need for coherent, high-quality ESG standards, as data inconsistencies and asymmetric market effects risk undermining strategic transition goals. For investors, ESG entails distinct pricing dynamics, requiring careful integration into portfolio construction and long-term transition financing.

Conclusion

Sovereignty in the 21st century increasingly depends on the ability to finance and govern ecological and social transformations. This thesis demonstrates that ESG and returns are dynamically intertwined in ways that create both dependence and autonomy: firms face market-driven sustainability costs but also develop governance responses that strengthen resilience. Understanding these dynamics is essential for shaping sustainable-finance policies that safeguard strategic sovereignty while managing the financial risks of global interdependence.