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Bank Business Models and ESG Performance

Evidence from European Banks

Based on the paper: "Bank Business Models and ESG Performance: Evidence from European Banks"(2025), Bellavite Pellegrini, Cincinelli, Roncella. Submitted to Journal of International Financial Management & Accounting in second round revision

Executive Summary

This research explores the relationship between banks' business models and the Environmental, Social, and Governance (ESG) performance. We use a threshold regression model (Hansen, 1999) to identify an optimal threshold level in the business models of a sample of 80 European listed banks during the 2006 - 2021 period.

We find a significant and positive relationship between the ESG score and the level of capital and stock of deposits when these are above their optimal thresholds. This highlights how greater attention to sustainability policies is associated with banks that have stronger capital and rely more on deposits as a source of funding.

We also find that the ESG score is sensitive to income structure values below the optimal threshold, confirming that a greater focus on ESG risks aligns more closely with banks characterized by traditional banking activities.

The results highlight the importance of ESG practices in the bank's management decisions and suggest that policymakers should encourage sustainable banking initiatives by integrating ESG factors into risk assessments, capital requirements, and financial incentives.

Context and Importance of the Issue

The onset of the financial crisis in 2007 underscored that changes in the operational strategies of banks played a pivotal role in reducing lending standards and amplifying the overall risk within the financial system (Berndt & Gupta, 2009; Mian & Sufi, 2009; Stiglitz, 2010; Altunbas et al., 2011; Bord & Santos, 2012). In the years leading up to the global financial crisis, many banks moved away from the traditional method of gathering deposits to fund loans that would be kept on their books until they matured. This approach, known as the "Originate to Hold " model, was replaced by a new business model called "Originate to Distribute", which focused on market dynamics. Under this model, banks originate loans intending to bundle and sell them as securities on financial markets, introducing a new aspect of risk (Gennaioli et al., 2012).

Over the years, the complexities of banks' business models (BBMs) have received significant attention from researchers (Ayadi & De Groen, 2014), institutions (Roengpitya et al., 2014), and regulators (Farnè & Vouldis, 2017), due to several reasons. First, BBMs directly influence their profitability and financial performance (Roengpitya et al., 2017; Mergaerts & Vander Vennet, 2016). Second, they significantly impact their risk profiles and resilience (Altunbas et al., 2011) and are related to the traditional banking risks such as credit, market, liquidity, and operational risks (Köhler, 2015). Third, BBMs play a pivotal role in driving innovation and facilitating the adoption of advanced technologies. Finally, an in-depth comprehension of banks' business models is crucial for policymakers, regulators, and stakeholders, allowing them to better assess the impacts of their decisions and maintain financial stability (Ayadi et al., 2016).

Sustainable finance opportunities and the integration of ESG considerations into financial operations underscore the increasing importance of aligning banks' business strategies with sustainability goals. This research points out that only certain dimensions of the business model are influenced by the voluntary adoption of CSR and that these changes are incremental under specific conditions. Secondly, considering that potential investors are more sensitive to

Findings and policy implications

First, we find that banks with higher ESG scores have better capital stability. In particular, the Social aspect plays a significant role. Second, when the ESG score is under a certain level, banks tend to have a lower ratio of loans to total assets. Third, when ESG scores are low or at a certain level, there is a negative relationship with the ratio of deposits to total assets. However, when ESG scores are higher, this relationship turns positive. This is also true for the Environmental and Governance pillars. Lastly, a higher ESG score is linked to a decrease in the Net Interest Margin to Interest-Margin ratio when it is below a certain level.

These results have implications at the individual bank level and also for the banking system:

- On an individual bank level, incorporating ESG issues can improve their resilience. Banks with higher ESG scores had stronger capital buffers and were less risky in their non-traditional banking activities. Financial regulators may use ESG measures to more accurately track banks' exposure to risks like those tied to the environment and society. For instance, banks with low ESG scores might be required to have larger capital cushions or undergo more monitoring for their risk management. As governance is a key determinant of ESG performance, regulators could also mandate that banks create their own ESG committees at the board level and better link leadership incentives to ESG targets. Banks with large trading businesses may also need to disclose their ESG-related risks in financial products, making those risks more transparent.

- If the banking system as a whole takes ESG factors into account, it can push stability. It can produce more sustainable sources of funding and lead to less reliance on fickle wholesale financing. Regulators might provide superior deposit insurance to banks that comply with certain ESG norms, making depositors feel more secure. There could also be policies in place to incentivize green deposit accounts, including ESG-focused deposit products such as green savings accounts that finance environmentally friendly projects. Banks with high proportions of non-deposit funds that are rated poorly on ESG may see their systemic risk restricted by tougher liquidity and capital demands. Ultimately, incentives such as tax benefits for institutions holding ESG-compliant assets can foster sustainable practices and in turn buttress financial stability.

Conclusion

Though it has brought some new perspectives, this study also bears several limitations that become gateways for future studies. The sample contains European banks and, hence, a relatively similar regulatory environment. However, the effect of ESG performance on business models varies across different jurisdictions due to regulatory pressure, investor expectations, and economic conditions. An extended study in U.S., Asian, or emerging-market banks is left for future research to test whether these relationships hold true under different institutional contexts.

Also, it uses composite scores that represent an aggregation of several environmental, social, and governance indicators. Even though these scores provide a very useful benchmark, the actual effect of specific subcomponents is masked. Another study can show how different individual ESG factors influence banking strategies and, in turn, affect bank strategy. For example, it could be carbon footprint, board diversity, or community investment. This paper describes how ESG performance shapes banks' business models and does not answer directly if such changes in the business model induced by ESG improve long-term financial performance or risk-adjusted returns. Such research can even further extend to relate profitability, market valuation, and risk metrics with that dimension over extended time horizons.

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