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CSRD and the Blue Economy: Building Transparency and Resilience

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This policy brief explores the intersection of the blue economy and the Corporate Sustainability Reporting Directive, highlighting opportunities for sustainable growth within marine industries and documents. As the sector grows, challenges like environmental degradation and inconsistent reporting deter investment and accountability. The CSRD framework offers a path toward standardized disclosures that can boost transparency, improve risk management, and align marine industries with climate goals. While documenting findings from our research, we present actionable policy recommendations to enhance compliance and attract responsible capital across the blue economy.

The blue economy is critical to global economic, social, and environmental resilience. It spans high-impact sectors like fisheries, maritime transport, tourism, and renewable energy. Collectively, these industries make substantial contributions to GDP and employment worldwide. As this sector expands, its significance for climate resilience and adaptation intensifies. Oceans absorb approximately 25% of anthropogenic carbon dioxide emissions and capture over 90% of excess heat, highlighting their essential role in climate regulation. The blue economy is positioned as a high-growth frontier, with projections indicating the global ocean economy could more than double by 2030, reaching an estimated $3 trillion.

A sizeable portion of this growth is expected from ocean-based renewable energy, particularly offshore wind, tidal, and wave power, which are set to play a vital role in reducing reliance on fossil fuels. Offshore wind alone is projected to supply up to 10% of global electricity demand by 2050, a central contributor to the clean energy transition.

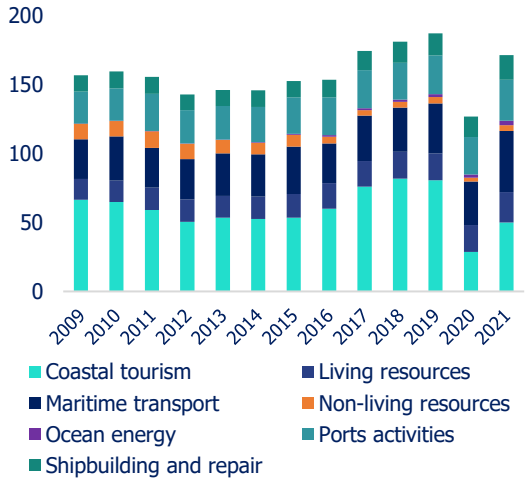

Figure 1: EU-based sum of value added at factor cost (€ Billion)

In the EU, the blue economy supports nearly 5 million jobs and generated an estimated €750 billion in gross value added in 2022. From 2009 to 2021, the sector's value added at factor cost grew steadily across industries, reflecting its economic importance. Key financial indicators, including gross operating surplus and gross profit margin, reflect the sector's strong profitability and resilience. Despite sensitivity to market conditions and external pressures, we observe growth across the years, notably in 2021.

The blue economy's steady growth has been vital to coastal economies. It drives job creation (+16.8% FY21), income generation (+72.6% GOS FY21), and new business opportunities (+30.4% FY21), reinforcing these regions' economic foundations. This growth also enhances social stability in areas vulnerable to economic and environmental fluctuations.

The sector's expansion has promoted innovation and sustainable development in marine industries, aligning with EU environmental goals through eco-friendly practices and advancing technological solutions. The uptick in growth and profitability in 2021 suggests a robust post-pandemic recovery within the blue economy. This recovery indicates the sector's adaptability and potential to rebound quickly from economic shocks.

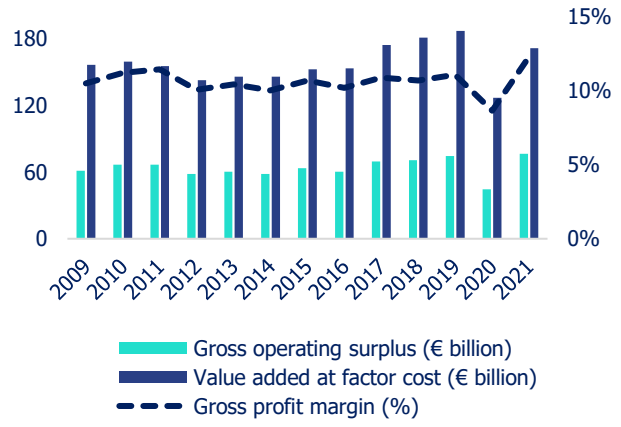

Figure 2: EU-Blue Economy Indicators

Key Challenges for Blue Economy

Marine industries increasingly depend on ecosystems under mounting pressure from climate-related changes. Ocean temperature anomalies, which represent deviations from typical sea surface temperatures, pose notable risks by disrupting marine habitats. These anomalies exacerbate existing challenges, including coral bleaching, reduced fish stocks, and shifting ocean productivity.

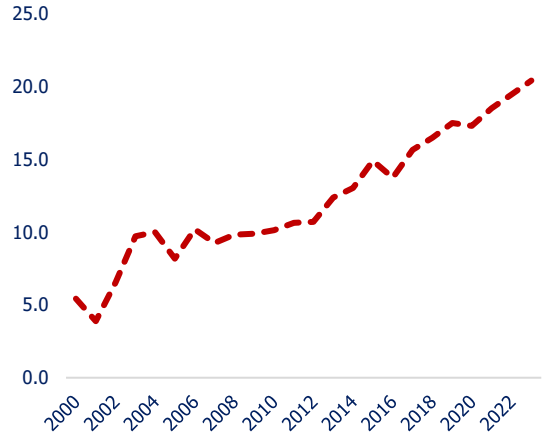

Figure 3: Ocean Heat Content (Joules), National Oceanic and Atmospheric Administration 2024

Our findings in Zhu et al. (2023) show a negative relationship between the leverage of blue firms and ocean temperatures, indicating that environmental risks can limit gearing and consequently strain financial flexibility. Ocean heat content has been increasing, and if this trend continues, it will pose more challenges to the operational dynamics of blue economy firms.

Coupled with pressures from overfishing, unregulated coastal expansion, and ocean acidification, marine ecosystems' overall resilience is declining, threatening biodiversity and the stability of blue economy sectors. Mitigating these interlinked risks is essential to preserving the EU's blue economy contributions to sustainable growth and environmental goals.

Furthermore, the blue economy faces a critical gap in standardized sustainability reporting. This lack of uniformity limits transparency, accountability, and data-driven decision-making, which is essential for sustainable development and comparison of environmental impacts across marine industries.

Blue Growth with Sustainability Disclosures

Nonfinancial disclosures, including environmental, social, and governance (ESG) reporting, have

become essential for businesses across sectors to demonstrate their commitment to sustainable practices. These disclosures have shown clear benefits for a range of stakeholders. Rahat & Nguyen (2022) indicated that environmental-based investment screening enhances equity portfolio performance. Umar et al. (2022) found that ESG scores positively influence the target price accuracy of sell-side analysts. Rahat and Nguyen (2023) observed that banks that integrate ESG criteria into their lending decisions see improved credit portfolio performance. Mirza et al. (2023) also found that incorporating climate-conscious criteria in SME lending strengthens banks' bottom line. Sun et al. (2024) concluded that ESG-related information contributes to superior risk-adjusted performance amid tightened monetary policy.

Reporting standards have evolved significantly, with the latest being the CSRD, which requires double materiality disclosures and mandates an audit of the reported information. Environmental impacts in the blue economy are substantial. However, disclosures' quality, scope, and comparability have varied widely. This inconsistency limits investors, policymakers, and other stakeholders, constraining informed decision-making and investment in marine industries.

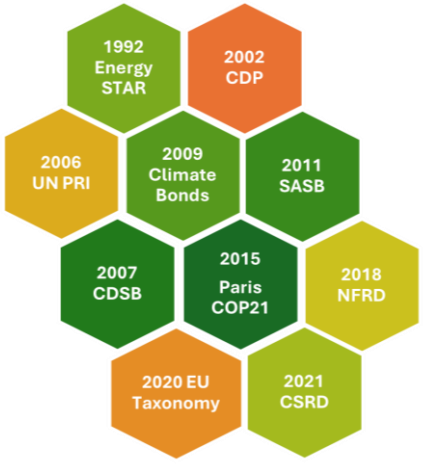

Figure 4: Evolution of ESG Reporting

Despite existing constraints, sustainability-related disclosures have been shown to provide incentives for blue economy participants. Mirza et al. (2024) found a positive relation between blue lending and banking spreads, alongside a negative relation with the default probability. This suggests that blue exposures positively contribute to credit portfolios by enhancing profitability and risk management. Similarly, Wang et al. (2023) reported that blue returns are sensitive to environmental data, with ocean temperature anomalies exerting a negative impact, while strong climate change performance correlates positively with returns.

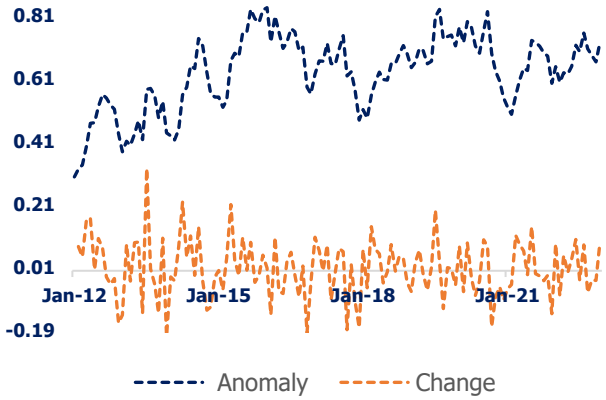

Figure 4: Sea Surface Temperature Anomaly (°C)

While these findings are encouraging, the CSRD further addresses gaps in sustainability reporting with a forward-looking framework for standardized disclosures. It aims to set new standards for environmental accountability and transparency. The directive creates a pivotal opportunity for the blue economy to align more closely with global climate goals. When fully implemented, the CSRD will require marine industries to report their environmental impact more consistently, making their sustainability efforts visible and more straightforward to verify.

By establishing clear, comparable metrics, the CSRD can attract more ESG-focused investors, attracting responsible capital into the sector. This approach will also help investors assess and mitigate risks related to climate change and ecosystem health. These are critical for industries where environmental issues directly impact profitability and resilience.

Policy Implications

We suggest policymakers enhance regulatory frameworks to support standardized ESG and sustainability disclosures in marine-based industries. Strengthening these standards, especially under the CSRD, would improve transparency and enable stakeholders to make informed decisions. Fiscal incentives, such as tax benefits, could attract capital into sustainable blue economy projects, fostering long-term growth and resilience. Furthermore, incorporating environmental risk metrics into credit and investment assessments for blue economy firms is essential. Finally, supporting R&D for climate-resilient technologies, such as ocean-based renewables and sustainable aquaculture, is crucial. Public-private partnerships could drive innovation that reduces environmental impact while increasing industry efficiency and productivity.

References

Mirza, N., Afzal, A., Umar, M., & Skare, M. (2023). The impact of green lending on banking performance: Evidence from SME credit portfolios in the BRIC. Economic Analysis and Policy, 77, 843–850. https://doi.org/10.1016/J.EAP.2022.12.024

Mirza, N., Umar, M., Sbia, R., & Jasmina, M. (2024). The impact of blue and green lending on credit portfolios: a commercial banking perspective. Review of Accounting and Finance, ahead-of-print(ahead-of-print). https://doi.org/10.1108/RAF-11-2023-0389/FULL/XML

Rahat, B., & Nguyen, P. (2022). Risk-adjusted investment performance of green and black portfolios and impact of toxic divestments in emerging markets. Energy Economics, 116, 106423. https://doi.org/10.1016/J.ENECO.2022.106423

Rahat, B., & Nguyen, P. (2023). Does ESG performance impact credit portfolios? Evidence from lending to mineral resource firms in emerging markets. Resources Policy, 85, 104052. https://doi.org/10.1016/J.RESOURPOL.2023.104052

Sun, T., Mirza, N., Umar, M., & Ktaish, F. (2024). When interest rates rise, ESG is still relevant – The case of banking firms. Finance Research Letters, 69, 106128. https://doi.org/10.1016/J.FRL.2024.106128

Umar, M., Mirza, N., Rizvi, S. K. A., & Naqvi, B. (2022). ESG scores and target price accuracy: Evidence from sell-side recommendations in BRICS. International Review of Financial Analysis, 84, 102389. https://doi.org/10.1016/J.IRFA.2022.102389

Wang, H., Mirza, N., Umar, M., & Xie, X. (2023). Climate change and blue returns: Evidence from Niche firms in China. Finance Research Letters, 56, 104119. https://doi.org/10.1016/J.FRL.2023.104119

Zhu, B., Liang, C., Mirza, N., & Umar, M. (2023). What drives gearing in early-stage firms? Evidence from blue economy startups. Journal of Business Research, 161, 113840. https://doi.org/10.1016/J.JBUSRES.2023.113840

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