

ENLENS

Energy transition through the lens of Sustainable Developments Goals

1 Title

The green finance arbitrage of poor environmental performers: legal and financial perspectives

2 Applicants

Main Applicant: Edoardo D Martino (Assistant Professor, FdR – e.d.martino@uva.nl)

Co-Applicants: Enrico Perotti (Professor of International Finance, FEB – e.c.perotti@uva.nl); Yasmine van der Straten (PhD Candidate, FEB – y.vanderstraten@uva.nl)

3 Societal Case

To achieve the climate goals as set out in the Paris Agreement of 2016, climate finance related to adaptation and mitigation need to increase by many fold (IPCC, 2023, para 4.8). However, financial frictions and legal mechanisms may prevent the efficient and effective deployment of financing. This may result in misallocation of resources as well as the unproductive use of resources, leading to the perpetration of the *status quo* and arbitrage of the firms' green commitments. We refer to these various cases as 'green finance arbitrage'.

Understanding green finance arbitrage is crucial to foster the energy transition of private companies, especially in relation to poor environmental performers. Legacy energy companies, such as fossil fuels companies, represent a paramount example. Therefore, this project will contribute to a fair and resilient economic growth (SDG 8) and the development of innovative sustainable solutions to meet corporate transitional plans (SDG 9). Last, but not least, a deeper interdisciplinary understanding of the legal - both national and transnational – framework behind the effective deployment of green finance will contribute to developing just and strong institutions that can foster the green transition (SDG 16).

4 Scientific Case

This project aims to lay the foundation for an interdisciplinary approach to increase our understanding of the problem of green finance arbitrage. While these phenomena are generally known, their underlying mechanisms are still understudied, especially when it comes to the interaction of legal institutions and financial incentives. In this phase, we seek to document relevant mechanisms leading to green finance arbitrage of corporations with poor environmental performance, as a first step to reach a fully integrated approach (see next section).

From a financial perspective, we focus on the potential strategic behaviour of corporations with poor environmental performance and which are highly exposed to stranded assets (Campiglio and van der Ploeg, 2022). A disorderly transition may cause a sudden drops in asset values, leading to debt overhang in these 'brown' firms. This reduces their ability to attract new investors (Myers, 1977), thus hindering investments in green capital and delaying the green transition. We study the optimal choice of capital structure for brown firms facing transition risk and propose an optimal financing contract to overcome inefficient ex-ante coordination. We aim to study this aspect from a formal corporate finance perspective, building on the framework of Myers (1977) and introducing stranded asset risk and a government actor. At the same time, poor environmental performers – including fossil fuel companies – may delay their energy transitions arbitraging the various and uncoordinated regulatory initiatives arising in various sectors of the financial market (e.g.: banks, securities market, private equity) and various jurisdictions (e.g.: EU; US; China, off-shore jurisdictions). While harmonization efforts are welcome, lack of global coordination is likely remain dominant in the coming years (de Arriba-Sellier, 2023). This leg of the project wants to map the legal conduit to attract cheap funds for poor environmental performers

while formally complying with the relevant sustainable finance regulation. We mainly consider three dimensions: sources of finance - public capital markets, bank finance, private credit (Stiglitz, 1988); cross-jurisdiction arbitrage (Eldar and Magnolfi, 2020) and group structure (Iacobucci and Triantis, 2007).

5 Contribution to ENLENS success indicators

A. In the long-term goal we aim to build an integrated legal and economic theory of the determinants of green finance arbitrage for companies with poor environmental performance. This is crucial to derive sensible policy implications. However, the two disciplines too often live in silos. This project represents a first step to establish a common language and framework. The exploratory nature of the endeavour makes it necessary to start small and try to create bottom up interest at both faculties (FdR and FEB) and other potential academic partners.

B. The long-term ambition is to embed this stream into the interdisciplinary research agenda of the Amsterdam Center for Law & Economics (ACLE) and the soon-to-be-established Amsterdam Center for Risk, Resilience and Regulation (AC3R). All applicants are contributing members of these interdisciplinary platforms. This should also create further positive spillovers involving also other researchers affiliated with ACLE and AC3R. Finally, we seek further synergies with researchers involved in interdisciplinary ENLENS projects.

C.1 Prof. Perotti is currently (part-time) senior advisor for financial stability at DNB and member of the Advisory Scientific Committee of the European Systemic Risk Board. The outcome of this project would have significant policy spillovers by engaging these key policy makers.

C.2 We plan to use the results of the project to develop new modules or cases for interdisciplinary courses dealing with financial resilience and the green transition. Specifically, the courses on 'Prudential Regulation' and 'Securities & Market Regulation' of the LL.M. in Law & Finance; the course on 'Market Failure, Economic Policy and Institutions' at AUC.

C.3 The results will be part of two interconnected but independent academic projects, which should form the basis for a future joint publication (see *infra* A). In the meantime, the interim results will be presented at top legal and financial conferences in the period between January 2025 and the end of 2026, for which the applicants are requesting reasonable travel budgets.

6 Budget

The requested amount is **30.000€**. We detail the specifics of the various posts, divided per faculty in the table below. The travel budget for Prof. Perotti is designated for travel to bring our research under the attention of key policy makers and institutions. Travel budgets for Prof. Martino and Van der Straten are intended to support the outreach of the initiative by engaging in various top international conferences, in the field of Law and Finance.

This exploratory phase building up to the wider and fully-integrated project discussed above will run from January 1st, 2025 until June 30th, 2026. The exploratory nature of this phase requires special funding as usual budgets are unavailable for this type of endeavour.

FdR		FEB	
Research assistant - 1 day per week (0.2 fte) for 9 months [40 € per h (incl. overheads) * 7.6 h per day * 36 weeks]	€ 11.000,00	Travel budget for the Co-Applicant (prof. Enrico Perotti)	€ 5.000,00
		Travel budget for the Co-Applicant (Yasmine van der Straten)	€ 5.000,00
Travel budget for the Main Applicant	€ 4.000,00	Travel budget for guest speakers for outreach occasions in Amsterdam	€ 5.000,00
Total FdR	€ 15.000,00	Total FEB	€ 15.000,00

Bibliography

- Campiglio, E. and van der Ploeg, F. (2022). Macrofinancial risks of the transition to a low-carbon economy. *Review of Environmental Economics and Policy*, 16(2):173–195.
- de Arriba-Sellier, N. (2023). The international regulation and coordination of sustainable finance. In *Netherlands Yearbook of International Law 2021: A Greener International Law—International Legal Responses to the Global Environmental Crisis*, pages 191–222. Springer.
- Eldar, O. and Magnolfi, L. (2020). Regulatory competition and the market for corporate law. *American Economic Journal: Microeconomics*, 12(2):60–98.
- Iacobucci, E. M. and Triantis, G. G. (2007). Economic and legal boundaries of firms. *Va. L. Rev.*, 93:515.
- IPCC (2023). Climate change 2023: Synthesis report. contribution of working groups i, ii and iii to the sixth assessment report of the intergovernmental panel on climate change.
- Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, 5(2):147–175.
- Stiglitz, J. E. (1988). Why financial structure matters. *Journal of economic perspectives*, 2(4):121–126.