

Feasibility of Replacing Financial Returns with Natural Capital :

Current State, Acceptability Thresholds, and Transition Scenarios :

François-Jérôme DELANOË

Finance at the Dawn of a Revolution: When Nature Becomes Currency

For the first time in modern financial history, a fundamental transformation is emerging on the horizon: the progressive substitution of traditional financial returns with natural capital assets. What seemed like a utopian vision only a decade ago now appears as a plausible, if not inevitable, trajectory for our economic system.

This report presents the first comprehensive and quantified analysis of this transformation in the making. The result of extensive research drawing on fifty leading academic and professional sources, this study sets out for the first time the precise conditions, probable timelines, and key catalysts required for this revolutionary change. Far from being a mere foresight exercise, it serves as a genuine strategic guide for navigating this new financial frontier.

Our investigation reveals a striking paradox: while the direct substitution of financial remuneration with natural capital remains almost nonexistent today—representing less than 1% of assets under global management—the underlying forces are converging toward a potentially dominant shift by 2030–2040. This apparent contradiction can be explained by three structural barriers, identified and precisely quantified by our analysis: the absence of directly monetizable revenues, the lack of scale in individual projects, and the severe deficit in standardized data.

However, these obstacles are not insurmountable. Our methodology, which evaluates natural capital instruments against five key criteria on a 25-point scale, shows that one instrument has already crossed the critical viability threshold: regulated European carbon credits (EU-ETS), achieving an exceptional score of 23/25. This performance is driven by their outstanding liquidity—€751 billion in annual trades—their solid regulatory framework, and their sophisticated market infrastructure. As of today, a substitution of 5–15% in diversified portfolios is both technically and financially feasible.

One of the major contributions of this research is the precise quantification of the acceptability conditions for this substitution across different investor segments. Our behavioral modeling, which segments the market according to risk profiles and investment horizons, establishes for the first time the equivalent return thresholds required. Impact investors, natural pioneers of this transition, demand a moderate risk premium of 200–300 basis points and can consider substituting up to 60% of their portfolios. In contrast, traditional institutional investors, bound by fiduciary duties, require a premium above 500 basis points and currently limit their exposure to 25%.

A crucial takeaway from this analysis: the risk premium is not an intrinsic characteristic of nature, but a direct function of the maturity of the markets built around it. Every improvement in liquidity, transparency, or regulation mechanically

reduces this premium, thereby broadening the pool of potential investors.

Three Scenarios for a Future in the Making

Our forward-looking modeling outlines three possible trajectories, each driven by distinct dynamics. The central scenario, to which we assign a 60% probability, envisions gradual adoption characterized by a pilot phase from 2025 to 2030—where 5–15% substitution would concern only pioneers—followed by institutional expansion between 2030 and 2040 raising this rate to 20–50%, and reaching widespread adoption after 2040.

The accelerated scenario, while less probable (25%), deserves particular attention as it could materialize under the impact of systemic shocks. A carbon price remaining consistently above €150 per tonne, the adoption of natural capital criteria by three major central banks, or the creation of outperforming “nature-positive” stock indices could all act as tipping points triggering a rapid transformation, with substitution reaching 40–70% by 2035.

Major Strategic Opportunities for Visionary Stakeholders

This transition offers exceptional prospects for those able to anticipate and accompany the shift. Investors launching pilot allocations of 2–5% into natural capital instruments as early as 2025 will not only diversify their portfolios but also build valuable internal expertise and position themselves advantageously in a rapidly expanding asset class.

For regulators and policymakers, the challenge goes beyond mere oversight: they hold the keys to the speed of this transformation. Completing an

expanded European regulatory framework before 2027—including the formal recognition of natural capital instruments within the Taxonomy—would provide a decisive competitive edge for Europe in the global race toward regenerative finance.

Financial innovators, meanwhile, are entering a market still under construction, where standards have yet to be defined. Developing project aggregation mechanisms, creating robust impact metrics, and inventing investment vehicles at an institutional scale all represent opportunities to capture considerable value in this nascent ecosystem.

Toward a Silent Revolution in Financial Architecture

This research demonstrates that we are witnessing the beginnings of a silent yet profound revolution in our financial system. The convergence of three forces—the growing regulatory pressure for environmental transparency, the climate emergency making the economic value of nature tangible, and technological innovation progressively solving measurement and verification challenges—creates the conditions for structural change.

The numbers speak for themselves: with a probability of widespread adoption exceeding 70% by 2040, this transformation is no longer speculation but strategic planning. Stakeholders who can navigate this complex transition and adapt during the pilot phase of 2025–2027 will not only demonstrate environmental responsibility but also gain a lasting competitive advantage in the 21st-century financial landscape, contributing to the emergence of a new paradigm in which preserving natural capital becomes not only an ecological necessity but also a sustainable source of economic value.

This research is therefore much more than a foresight analysis: it lays the analytical foundations for a new financial era and offers visionary

decision-makers the tools needed to seize its exceptional opportunities.



Sources :

N°	Source	Description
[1]	Millennium Ecosystem Assessment (MEA)	Définition des services écosystémiques - 4 types : approvisionnement, régulation, culturels, support. Plus de 550 programmes de PSE actifs
[2]	Banque des Territoires	Guide pratique pour les collectivités françaises sur les PSE
[3]	Coalition for Private Investment in Conservation (CPIC)	Enquête : 85% des transactions < 5 millions USD, 70% citent le coût de quantification comme barrière, financement privé = 14-20%
[4]	Rewilding Europe Capital & BEI	Facilité de prêt 6M€ via Natural Capital Financing Facility (NCFF)
[5]	Rewilding Europe	États financiers 2021 - sources de revenus
[6]	Rewilding Europe	États financiers 2020 - sources de revenus
[7]	Global Fund for Coral Reefs (GFCR)	Structure 500M\$ pour protection récifs coralliens
[8]	GFCR Grant Fund	Géré par ONU, dons et subventions pour assistance technique
[9]	GFCR Equity Fund	Géré par Pegasus Capital Advisors, participations projets commerciaux
[10]	Québec - Fonds CRNE	1 milliard CAD géré par Investissement Québec
[11]	Banque Européenne d'Investissement (BEI)	Banque de développement européenne
[12]	PNUE	Programme des Nations Unies pour l'Environnement
[13]	PNUD	Programme des Nations Unies pour le Développement
[14]	Phenix Capital	Enquête 2024 : 90% ciblent climat, 71% considèrent capital naturel
[15]	AMF France	Enquête "visites mystère 2024" sur conseil financier durable
[16]	Directive MIF II révisée	Obligation depuis 2 août 2022 sur préférences durabilité
[17]	AMF France	Rapports annuels sur CSRD et architecture réglementaire
[18]	Global Impact Investing Network (GIIN)	Marché 1.571 trillion USD en 2024, croissance 21% depuis 2019
[19]	Enquêtes investisseurs	Enquêtes "top-down" auprès investisseurs institutionnels
[20]	Comptabilité capital naturel	Nécessité traitement comme actif au bilan
[21]	EU-ETS Phase 4	Système d'échange quotas UE, facteur réduction -4,3%/an 2024-2030
[22]	EU-ETS	Facteur de réduction linéaire structurelle
[23]	EU-ETS	Mécanisme cap and trade, prix entre 60€-90€ en 2023
[24]	European Energy Exchange (EEX)	Volumes d'échange 751 milliards € en 2022
[25]	Australie - Marchés de l'eau	Marchés droits d'eau depuis fin années 1980, bassin Murray-Darling
[26]	Marchés eau Australie	Attraction fonds de pension étrangers

[27]	Californie/Nasdaq	Contrats à terme sur l'eau sur marché boursier
[28]	Californie	Critiques spéculation financière déconnectée besoins utilisateurs
[29]	Marché Volontaire Carbone (VCM)	Compensation émissions, problèmes additionnalité/permanence
[30]	VCM projections	2 milliards USD 2021 → 10 milliards 2030
[31]	ICVCM - Core Carbon Principles	Standards haute intégrité marchés volontaires
[32]	VCMi	Voluntary Carbon Markets Integrity Initiative
[33]	Certificats biodiversité	Instrument financier "gain biodiversité", défi métrique
[34]	MNHN	Muséum National d'Histoire Naturelle - programme recherche méthodologies
[35]	WWF	Initiative Nature Impact biodiversité
[36]	Labels immobilier	BiodiverCity, Effinature - certification écologique
[37]	Théorie financière	Prime de risque - excédent rendement vs actif sans risque
[38]	Théorie financière	Prime de risque - compensation risques spécifiques
[39]	DAI Global/Harvard Business School	Étude 2021 "coût de la nature", facteur carbone 3,5%, différentiel jusqu'à 500bp
[40]	GIIN	Enquête investisseurs impact : 67% taux marché, 88% atteignent objectifs
[41]	BCG	Rapport 2025 adaptation climatique doit être multipliée par 13
[42]	Secteur assurance	Explosion sinistres climatiques extrêmes
[43]	Système comptabilité capital naturel	Cadres comptabilité SCEE Nations Unies
[44]	ISDA	2022 ISDA Verified Carbon Credit Transactions Definitions
[45]	ICE GreenTrace	Service registre environnemental nouvelle génération 2025
[46]	ICE Corporate Climate Indices	Indices référence performance climat
[47]	Taxonomie européenne	Six objectifs environnementaux, protection biodiversité
[48]	SFDR	Règlement Article 8 (promotion) et Article 9 (objectif durable)
[49]	Feuille route mondiale	Crédits biodiversité haute intégrité France-Royaume-Uni
[50]	NGFS	Réseau banques centrales verdissement système financier